Higher education and research

in the Netherlands

Bulletin of the Netherlands Universities Foundation for International Co-operation

Vol. II - no. 2 - 1958

NETHERLANDS UNIVERSITIES FOUNDATION FOR INTERNATIONAL CO-OPERATION (NUFFIC)

Board of Governors:

H.R.H. THE PRINCE OF THE NETHERLANDS, *Honorary Chairman*
PROF. DR. A. L. DE BLOCK, *Chairman*

Executive Committee of the Board of Governors:

PROF. DR. A. L. DE BLOCK – PROF. DR. C. C. BERG – PROF. DR. O. BOTTEMA – DR. J. DONNER – PROF. DR. E. H. 'S JACOB – DR. R. A. JELLEMA – PROF. DR. H. R. KRUYT – PROF. DR. R. A. J. VAN LIER – PROF. DR. F. L. R. SASSEN – MISS M. A. TELLEGEN

Directors:

H. G. QUIK and PROF. DR. E. DE VRIES

The Foundation places itself at the service of international co-operation in the academic and scientific field by

promoting higher education and scientific research in the Netherlands of a nature capable of meeting needs felt beyond the country's own frontiers;

making known abroad what the Netherlands can contribute to international co-operation in the field of higher education and scientific research;

lending its collaboration in other ways to further international scientific exchange in the widest sense of the term.

This Bulletin is produced with the co-operation of the following institutes and agencies:

Ministry of Education, Arts and Sciences
Royal Netherlands Academy of Sciences and Letters
Netherlands Organization for Pure Scientific Research (Z.W.O.)
Central National Council for Applied Scientific Research in the Netherlands (T.N.O.)
Bureau for International Technical Assistance of the Ministry of Foreign Affairs
Royal Tropical Institute
Institute of Social Studies
International Training Centre for Aerial Survey
International Agricultural Study Centre
International Institute for Land Reclamation and Improvement
Foundation "Training Courses and Research"
Foreign Student Service.

HIGHER EDUCATION AND RESEARCH is a quarterly publication appearing in English, French, German and Spanish. Extracts from it may be freely reproduced with due acknowledgment of their source. Responsibility for the translation of the original contributions to this Bulletin rests with NUFFIC.
This issue was edited by H. G. QUIK and G. VAN DEN STEENHOVEN.
Editorial Offices: NUFFIC, 27, Molenstraat, The Hague, The Netherlands.

HIGHER EDUCATION AND RESEARCH IN THE NETHERLANDS

VOL II – No. 2 – JUNE 1958

CONTENTS:

Page

The Teaching of Economics at Netherlands Universities by F. J. DE JONG 2

University Education and Examinations in the Netherlands by F. L. R. SASSEN 11

Extracts from my Diary by A. NATH 14

CHRONICLE:

Institutions 17

International Courses 18

International Scientific Meetings 19

Libraries and Museums 20

Foreign Students in the Netherlands 22

Guest Lecturers in the Netherlands 24

Miscellaneous 25

Doctoral Dissertations 28

Scholarships Tenable in the Netherlands 32

Basic Data on International Courses 35

THE TEACHING OF ECONOMICS AT NETHERLANDS UNIVERSITIES

The history of higher education in economics in the Netherlands

The study of economics has formed part of the curriculum in the faculties of law at Dutch universities since early times. Thus N. G. Pierson (1839–1909), whose principal work, *Leerboek der Staathuishoudkunde*, was translated and became known in other countries besides the Netherlands,[1] was a professor in the faculty of law at the University of Amsterdam. Prior to the year 1913, however, there were no independent faculties or schools of economics in the Netherlands.

The first independent institution for the teaching of economics at the university level was inaugurated on November 8, 1913. It was known as the *Nederlandsche Handelshoogeschool* (Netherlands School of Commerce) and was founded at Rotterdam on the initiative of a group of business men in that city, who had formed themselves into the *Nederlandsche Vereeniging voor Hooger Handelsonderwijs* (Netherlands Society of Higher Education in Commerce). From this institution's[2] title alone, it is apparent that the intention was to provide advanced instruction of marked practical bent, confined to the study of commercial life. After following a course of study lasting two or three years, students could obtain a "commercial science diploma".

The professors teaching at the Netherlands School of Commerce were not long in realizing that it was a practical impossibility to confer on teaching of this kind a genuinely academic character.[2] Since commercial life represents only part of economic life as a whole, and since, moreover, in the years subsequent to 1918, economic problems began to assume increasing importance in the world, there was a growing need to include economic *theory* in the curriculum. It soon became evident that society had a need of men with academic training in economics, particularly on government and semi-official bodies, in the world of journalism and also in all manner of other public organizations. Furthermore, it seemed desirable to open up a possibility of academic training for the profession of accountant. And thus it was that, under the pressure exerted by the practical needs of society, the Netherlands School of Commerce – originally founded for the purpose of "completing the training of men of commerce, of commercial experts, of consular officials and of teachers of the commercial sciences" – gradually evolved into an institution of higher education genuinely academic in character. And this evolution was reflected in the change of name which the school underwent in 1938, when it became known as the *Nederlandsche Economische Hoogeschool* (Netherlands School of Economics).

It was not long before this example was being imitated. In 1922 the Municipal University opened a Commercial Science Faculty, later re-named the Economic Science Faculty. In 1927 this was followed by the establishment of the Roman Catholic School of Commerce at Tilburg, which school, however, represented itself from the time of its foundation as being a school of economic *and social* science, but which nevertheless altered its name in later years to the *Katholieke Economische Hogeschool* (Roman Catholic School of Econo-

[1] Published in two volumes by Bohn, Haarlem (1st. edition 1884, 2nd. ed. 1896, 3rd. ed. 1912. The work has been translated into English, French and Italian. The English translation by A. A. Wotzel was published under the title of *Principles of Economics* by Macmillan, New York, two volumes, 1902–1912. The French version, entitled *Traité d'Economie Politique*, was translated by L. Puret and published, in two volumes, by Giard & Brière, Paris, 1916–1917.

[2] See the "Rapport van de staatscommissie tot reorganisatie van het hoger onderwijs", The Hague, 1949, p. 396.

mics). In view of its philosophical foundations, this school broadened the field of study from the outset, according an important place in its curricula to philosophy, sociology and social policy. In the academic year 1945-1946, the Tilburg School of Economics set up a separate department of social science, a development which was subsequently followed by the other institutions of higher education in economics.

Until the end of the second world war, the Netherlands School of Economics at Rotterdam, the Economics Faculty at the Municipal University of Amsterdam and the Roman Catholic School of Economics at Tilburg were the only institutions of higher education in the Netherlands at which economics was being taught as an independent subject. In 1948, two universities set up new faculties of economics, these being the Free (Reformed) University of Amsterdam and the State University at Groningen. Like the School of Economics at Tilburg,[1] the Free University at Amsterdam bases its teaching on religious convictions. Whereas, however, the Tilburg School bases itself – as is apparent from its name – on the Roman Catholic faith and philosophy of life, the Free University declares in its statutes that all its teaching shall be founded on Calvinist principles, without there being any identification, however, with any particular church. It can be said, nevertheless, that the professors appointed to chairs at this university come from an orthodox Protestant milieu. The faculty of economics at this university, too, has separate departments for business economics and social economics.

Up to the present, the University of Groningen is the only *State* university to have a separate faculty of economics. At the other State universities – and at the Roman Catholic University at Nymegen – higher education in economics is provided only in the faculties of law or social science. It is also possible to study economics in these same faculties at the State University at Groningen, the Free University of Amsterdam and the Municipal University of Amsterdam. It should be mentioned as well that economics is also taught at the Agricultural University at Wageningen.[2]

The table on page 4, referring to the academic year 1956-57,[3] shows the total number of students at Netherlands institutions of higher education together with the number studying economics.

In the following sections an outline account – leaving out many of the details – will first be given of the study of economics in the faculty of law, in the "inter-faculty" of the social sciences, and at the Agricultural University. This will be followed by an account of the course in the faculties of economics at the different universities and at the schools of economics – first, the arrangement of the course, i.e. the series of examinations which have to be passed, after which details of each examination will be given separately.

The study of economics in the faculty of law, the inter-faculty of social science, and at the agricultural university

Economics is a compulsory subject for the intermediate ("candidaats") examination in law and in the social sciences. The level required is not exactly the same in the different faculties, the freedom allowed to the teachers – which freedom is fundamental to higher education in the Netherlands – permitting certain variations, dependent upon the judgement of the professor concerned. The purpose of this study of economics is to equip future lawyers and sociologists with some insight into the relation between various social pheno-

[1] And the Roman Catholic University at Nymegen.
[2] Economics (mainly business economics) is also taught to certain students at the Technological University at Delft.
[3] Source: *Statistiek van het hoger onderwijs*, Zeist, 1958, pp. 6/7.

Relative Significance of the Number of Students of Economics at Netherlands Institutions of Higher Education

M – men; W – women; T – total

University or School of Economics	All Subjects			Economics		
	M	W	T	M	W	T
State University at Leyden	3.064	1.297	4.361	—[1])	—[1])	—[1])
State University at Utrecht	4.260	1.112	5.372	—[1])	—[1])	—[1])
State Univers. at Groningen	1.897	465	2.362	189[2])	4[2])	193[2])
Municipal University of Amsterdam	4.644	1.674	6.318	689[2])	18[2])	707[2])
Free (Reformed) University of Amsterdam	1.908	315	2.223	430[2])	16[2])	446[2])
Roman Catholic University at Nymegen	1.550	405	1.955	—[2])	—[2])	—[2])
Technological University at Delft	5.377	81	5.458	—[3])	—[3])	—[3])
Agricultural University at Wageningen	728	100	828	—[3])	—[3])	—[3])
Netherlands School of Economics at Rotterdam . .	1.389	34	1.423	1.389	34	1.423
Roman Catholic School of Economics at Tilburg .	627	12	639	483[4])	2[4])	485[4])
Total	25.444	5.495	30.939	3.180	74	3.254
Percentages	100	100	100	12.5	1.3	10.5

[1] The students in the faculties of law and social sciences include those who have selected economics as an optional subject for their "doctoraal" studies. All these students, moreover, make some study of economics for their "candidaats" examination. These figures are not shown in the table.
[2] Here, too, the remarks in note 1 apply to students of law and the social sciences. Under "economics" in the table, only the students working in the economics faculty have been shown separately.
[3] In some branches of study economics is also taken. These cases have not been shown separately in the table.
[4] Students of the social sciences also receive instruction in economics. They have not been shown separately in the table.

mena with which they will later come into contact in the exercise of their professions. The aim is not to train economists proper, capable of analyzing all manner of economic problems on their own, but rather to give the students a general idea of these problems and nothing more.

Economics is not included among the compulsory subjects for the final ("doctoraal") examination in law and in the social sciences, though the subject may be chosen as an optional subject. On passing his final examination in law, the student who has included economics in the subjects for his final examination becomes qualified to teach economics at the secondary and grammar school level.[1] All the same, he is not an economist in the true sense of the word, for the aim of his education has been to make a jurist of him.

At the Agricultural University at Wageningen economic theory is a compulsory subject for all candidates for the propaedeutic examination, whatever their branch. Of the twenty-two branches from which a choice must be made when studying for the "candidaats" examination, there are five in which economics is a compulsory subject. These are: agricultural economics (which includes, among other things, agrarian business economics), tropical agricultural economics, sociography and sociology of the West, sociography and sociology of the non-Western areas, and, finally, socio-agricultural economics ("kitchen-engineer"). As regards study for the degree of engineer in these branches, economics is a "recommended optional subject", particularly in the two agricultural economics branches. Study in these branches does not, however, lead up to a degree qualifying one to teach the subject of economics. Other subjects taught in certain branches during the "candidaats" courses are: cost-price calculation, the financing of the business enterprise and the determination of profits; in the engineer's course attention is paid to international economic policy.

The study of economics in the economics faculties and at the schools of economics

The candidates for the examinations held by the universities and schools of economics must have passed their final examinations at a secondary *(H.B.S.)* or grammar *(Gymnasium)* school.

The series of examinations students are required to pass is not exactly the same in all economics faculties and schools of economics. At Rotterdam and Tilburg they are required to pass a propaedeutic examination after completing their first year of study, which examination is followed about two years later by the intermediate ("candidaats") examination. These examinations are the same for practically all students.[2]

There is no formal propaedeutic examination in the faculty of economics at the State University at Groningen. Its place is taken by six preparatory examinations ("tentamens") in the following subjects: bookkeeping and commercial arithmetic,[3] mathematics I (ele-

[1] Naturally, students passing the final examinations in an economic faculty or at one of the schools of economics are also qualified to teach economics. Sociologists, on the other hand, are never qualified to do so, although they very often receive exactly the same training in economics as the law students. The privilege accorded to the law students is a survival from the days when only law students studied economics.

[2] There is a slight difference for those planning to take "quantitative economics" in their later work for the "doctoraal" examination. In this text we are dealing exclusively with the study of economics proper, i.e. not with study in the social science branch.

[3] Students coming from the A-group of secondary schools are exempted from this, if, in the opinion of the professor of business economics, they achieved sufficient marks in their final examinations; the holders of bookkeeping diplomas are likewise exempted.

mentary mathematics),[1] mathematics II (differential and integral calculus etc.), introduction to economics, introduction to business economics and a written test in statistics. A series of preparatory examinations also takes the place of the propaedeutic examination at the Municipal and the Free (Reformed) Universities of Amsterdam.

Two ways usually lie open to the student after he has passed his intermediate ("candidaats") examination. In the first place he can round off his study in a short period of time by taking the bachelor's ("baccalaureaat") examination. This possibility has been created for persons who prefer a brief course of study at the academic level rather than a prolonged course, leading to the final "doctoraal" examination. The bachelor's examination does not, however, qualify one to teach, nor does it open the way to the doctor's degree. Those desiring to acquire these latter qualifications must take the final ("doctoraal") examination.[2] The bachelor's examination is in a sense the former "commercial science diploma" in resurrected guise, though it is of higher academic status. The number of students taking the bachelor's examination still forms only an extremely small percentage of the total.[3]

The other possibility – and the one *usually* chosen – is to study for the final "doctoraal" examination. It is actually inaccurate to speak of "the" final examination, since at most of the institutions of higher learning providing an economics course various branches of study can be followed after the "candidaats" examination, each leading up to its own "doctoraal" examination. Thus at the Netherlands School of Economics there are four branches, viz. business economics, political economy, social economics and "quantitative economics". At the State University at Groningen, on the other hand, there are no separate branches at all, specialization being achieved in an entirely different manner, to be explained later on. At other universities, for example at the Municipal University of Amsterdam, a middle path has been taken, that is to say, no separate branches have been organized, but, within certain limits, the students are allowed freedom to lay the emphasis on certain subjects and, on the other hand, to curtail to some extent their study of others.

The propaedeutic examination

This examination is held at the Netherlands School of Economics at Rotterdam and at the Roman Catholic School of Economics at Tilburg.

At Rotterdam it covers the principles of economics (including both price theory and monetary economics), business economics, statistics and two "tentamens" in mathematics, from the first of which exemption is possible in some cases. The preparatory study for this examination also includes bookkeeping, though this subject is not taken at the examination itself. Students not exempted from taking this subject on the grounds of some form of bookkeeping diploma or on the grounds of their final school examination, are required to take a preliminary examination before being admitted to the "candidaats" examination.

At Tilburg the propaedeutic examination covers "philosophical psychology" and ethics, the principles of economics (both price theory and monetary economics) and economic geography. In addition, before one is admitted to the propaedeutic examination, one is required to show proficiency in bookkeeping, commercial arithmetic and mathematics (I and II).

[1] Students coming from the B-group of secondary schools and grammar schools and having obtained 70% of the marks in the final examinations in algebra and trigonometry are exempted from this examination; also those holding a secondary diploma in mathematics.

[2] It is not necessary to write a thesis and acquire the title of doctor after passing the "doctoraal" examination in order to be qualified to teach economics.

[3] At the State University at Groningen there are so far no acilities or taking this examination.

The "candidaats" examination

According to the terms of the academic statute of 1938 the "candidaats" examination comprises, in general, the following subjects:

1) *Economics.* In practice this subject falls into two parts, viz. price theory and monetary economics. The study of the price theory is combined with the teaching of methodology, the theory of the economic order, the history of economic theories and of political schools. Monetary economics covers theory of money, the business-cycle theory, the theory of international economic relations and economic policy.

2) *Business Economics.* This subject, too, is usually split into two sections, viz. the cost-price problem and the determination of profit, and also financing theory.

3) *Civil and Commercial Law.*

4) *Economic History* (including the principal aspects of social history).

4) *Economic History* (including the principal aspects of social history).

5) *Economic Geography* (including the principal aspects of social geography and physical geography).

6) *Statistics.*

Students intending to specialize in "quantitative economics" in their study for the "doctoraal" examination are required to take mathematics at their "candidaats" examination; they are, however, allowed to omit either civil and commercial law or economic geography. This variant of the "candidaats" examination, differing from the normal pattern, cannot, however, be taken at all Netherlands institutions of higher education in economics.

The "Baccalaureaat" examination

Regulations regarding the bachelor's ("baccalaureaat") examination have not yet been included in the academic statute, this examination having been introduced only a few years ago. It is intended as a rounding-off of the "candidaats" examination already taken by the student, the preparatory period of study varying from about five months (Rotterdam) to about one year (Tilburg). There are two reasons why this examination has been introduced. In the first place, some students are not keen on following the prolonged course of study (about three years) required for the "doctoraal" examination, and in the second place, the industrial world has made known its need for *young* persons of lighter calibre, who have nevertheless enjoyed some form of academic training.

The number of students taking this examination is small, as has already been remarked. Moreover, quite a number of those passing the examination decide, on second thoughts, to continue their studies and to take the "doctoraal".[1]

In order to provide an idea of what the "baccalaureaat" examination embraces, particulars are given below, by way of example only, of the subjects covered by this examination at Rotterdam:

1) applications of business economics.
2) economic research.
3) introduction to fiscal law.
4) introduction to social law.
5) principles of modern business management.

[1] In the author's personal opinion, it would be a more attractive proposition for the students (because more efficient) if a separate course leading up to the "baccalaureaat" examination were to be instituted, avoiding the round-about way via the "candidaats" examination. Should a student wish, after passing his "baccalaureaat", to continue his studies he would have to take the "candidaats" examination after all, though he would certainly enjoy a number of exemptions on account of his having already passed the "baccalaureaat" examination.

Students are required to attend seminars on subjects 1 and 2 above, and those who participate in them with success are exempted from taking these subjects at the examination itself.

The final ("doctoraal") examination

As has already been said, the final ("doctoraal") examination is not the same at all Netherlands institutions of higher education in economics, though not all the details of the existing variations can be indicated within the scope of the present article. Suffice it, therefore, to give a very rough picture of the examination in the form it takes at Rotterdam, at the State University at Groningen and at the Municipal University of Amsterdam.

In principle, the final economics examination in the Netherlands comprises, according to the academic statute, the compulsory subjects of economics and business economics and two subsidiary subjects in addition, which may be chosen from a wide range of subjects, some of which are: economic history, economic geography, public finance, econometrics, civil and commercial law, fiscal law, sociology, agricultural economics, market analyics and business psychology.

The examination based on the above traditional pattern is referred to at Rotterdam as the "doctoraal" examination in business economics. If the subject of business economics is replaced by Netherlands constitutional and administrative law, one speaks of the "doctoraal" examination in economics and public administration. A third possibility is the economics and sociology branch, in which case business economics is replaced by sociology. The list of optional subjects is not the same for all three of these branches.

There is also a fourth branch, that of "quantitative economics", and this branch comprises:

1) Either *(macro)- economics* or
   business economics, (macro)- economics and market analysis.
2) *mathematical economics and econometrics:*
   a) mathematical economics,
   b) econometrics.
3) *mathematical statistics:*
   a) calculation of probability and statistics,
   b) economic statistics,
   c) advanced statistics.
4) *mathematics:*
   a) differential and difference comparisons,
   b) matrix algebra,
   c) advanced mathematics.

The system followed in Groningen differs in principle. There the examination always takes the traditional form referred to at Rotterdam as the business economics branch, specialization being achieved in two different ways, which each student must follow simultaneously. In the first place, he is required to take two optional subjects. If he wants, for instance, to become an econometrist, he can take two optional subjects, both of which lie in the econometric field, viz. a) general statistical analysis and general econometrics, and b) business statistical analysis and business econometrics.[1] He can also take only one of

[1] The student taking one or both of these subjects also receives advanced instruction in mathematics.

these two sections and choose an entirely different subject as his second optional subject, while he can also, of course, ignore econometrics altogether and choose two other fields of study. In the second place, in addition to certain fixed subjects, the same for every student, the economics material he is required to study also has a variable component which is decided upon, case by case, in consultation with the student himself. This arrangement makes it possible for the student to devote special attention in his work for the "doctoraal" examination to a given phenomenon or group of phenomena (examples: the concentration phenomenon, the wages problem, economic policy). By concentrating study as far as possible around a central subject of this kind, one at the same time promotes coherence, so that the study of the different subjects builds up into a whole.
It is, therefore, the aim of the faculty of economics at Groningen that the student should choose a certain phenomenon or group of phenomena to which he will devote special attention in good time *before* he takes his first preliminary ("tentamen") examination, and at the same time as he selects his optional subjects. In choosing his central subject, he must consult with his different professors.

In the economics faculty at the Municipal University of Amsterdam, the study of the main economics subjects has been split, as it has in Groningen, into two principal subjects, economics and business economics. After the "candidaats" examination at the Municipal University each principal subject is, however, subdivided into four sections, as follows:

Economics:
a) general economic theory (price theory etc.),
b) theory of money and of macro-economic phenomena,
c) theory of public finance,
d) banking theory and theory of international economic relations.

Business Economics:
a) special chapters of business economics and the theory of internal organization,
b) theory of external organization,
c) labour economics,
d) theory of value and profit.

The greatest possible moderation has been observed with regard to specialization in these subjects. Thus there is definitely no question of making a choice between *either* the social economics *or* the business economics branch. It is, however, possible to give the programme of study a certain bias, since every student working for the "doctoraal" examination enjoys a wide measure of freedom in organizing his programme.[1] In six of the eight sections mentioned above the student must take a "tentamen" or examination. For three of these six sections what is known as a "minor tentamen" is sufficient, covering subjects dealt with during one year's lectures and related to a limited programme of reading. A more extended reading programme and wider study of the subjects, dealt with during two years of lectures applies to the other three sections. What is known as a "major tentamen" has to be taken in these sections, while the student is also required to write an essay on one of them, which essay has to be submitted two months before the tentamen in this section of his study is taken.[2]

[1] In Amsterdam, in addition to the eight sections mentioned, there are also ten subsidiary subjects for the "doctoraal" examination, from which each student must select two for his examination. A noticeable difference between Groningen and Amsterdam in this respect is that, whereas in Groningen public finance theory is an optional subject, at Amsterdam it forms one of the eight sections.
[2] Students are also required to write essays and to attend seminars at the other economics faculties and schools of economics.

The student is left free in his choice of the six sections, subject to the reservation that sections a) and b) are compulsory both for Economics and Business Economics, while a "major tentamen" *must* be taken for at least one of the two a) sections. Of the sections b) and c) selected, a "major tentamen" *must* be taken in *two* of the four.

Field of occupation of graduates ("doctoraal" examination) in economics

To conclude this article, a table is given below showing the number of graduates as at January 1, 1952, distinguished according to their university[1] and to their occupational field. A distinction has been made in the case of graduates of the Netherlands School of Economics at Rotterdam between political economists and other graduates.[2]

F. J. DE JONG[3]

Rough survey of the fields of occupation of Dutch economists as at January 1, 1952

Occupational field	Rotterdam		Amsterdam	Tilburg	Total
	Political Economy	Others			
Private and government enterprise . .	43	541	162	192	938
Government service	71	223	46	65	405
Semi-official services and associations	31	132	41	99	303
Independent professions, teaching and others	37	316	81	103	537
Total known	182	1.212	330	459	2.183
Unknown	24	125	51	41	234
Grand total	206	1.337	381	500	2.417

Expressed as percentages

Private and government enterprise . .	23	45	49	42	42.9
Government service	39	18	14	14	18.5
Semi-official services and associations	17	11	12	22	13.9
Independent professions, teaching and others	21	26	25	22	24.7
Total	100	100	100	100	100

[1] At the time, the economics faculties at the Free (Reformed) University of Amsterdam and the State University at Groningen had not yet turned out any graduates.
[2] This table is to be found in an article "Economisch en Sociologisch Hoger Onderwijs en het Bedrijfsleven" (Higher Education in Economics and Sociology and the Business World) in *Maandschrift Economie*, XVII (1952/53) pp. 150/159. Cf. p. 153.
[3] Dr. F. J. de Jong is Professor of Economics at the State University at Groningen.

UNIVERSITY EDUCATION AND EXAMINATIONS IN THE NETHERLANDS

University education in the Netherlands is characterized by the wide measure of freedom it enjoys. There are no legal provisions laying down a set programme of *teaching*. Each professor and other tutor is free to give that instruction which he himself thinks fit, within the scope of the subject he has been appointed to teach. He is required to obtain the permission of the curators before he gives instruction in other subjects, outside the scope of his own.

The *examination* programme is, on the other hand, laid down by legal provisions, which the public universities are obliged to observe, while the other, special universities must make at least equal requirements of their students, though they remain free to set wider or severer requirements.

University education is regarded as having been terminated when the degree of doctor has been acquired, of which more later. Except for certain exemptions provided for by the relevant legislation – which can be granted, for instance, to the holders of certain certificates obtained from universities abroad – the degree of doctor is not conferred on the student before he has passed two examinations, viz. The "candidaats" and the "doctoraal" examinations, which examinations must be taken in the faculty whose degree is desired, or in what we know as the "joint faculties".

All universities have faculties of theology, law, medicine, sciences and arts, while the University of Utrecht also has a veterinary science faculty. Some universities have faculties of economics, which faculties are placed on a par with the schools of economics. The technological universities and the agricultural university have their own system of examinations which, however, correspond in the main with those of the other universities. At these special universities the engineer's *(ingenieurs)* examination takes the place of the "doctoraal".

In the case of certain branches of study at the universities, psychology and sociology, for instance, the examinations are taken in the "joint faculties". In this case the doctor's degree can, as a rule, be obtained in any one of these faculties.

For the practice of certain professions in society, such as those of doctor, dentist, veterinary surgeon and dispensing chemist, candidates are also required to pass a practical examination, which they take after having passed the two examinations already mentioned.

In the faculty of theology, at the technological universities, at the schools of economics and at the agricultural university, the "candidaats" examination is preceded by a propaedeutic examination.

The requirements for the "candidaats" examination in the various subjects are precisely defined in most faculties and interfaculties, and it is only seldom that a student is free to make a choice out of a number of alternative subjects. In this way the "candidaats" examination ensures that the student acquires the necessary fundamental knowledge for further study in his main subject. The "doctoraal" examination on the other hand usually leaves him more freedom, in the sense that in addition to the prescribed main subject, the student may himself choose one or more subsidiary subjects, although, of course, his selection requires the approval of the faculty. This opens a possibility of specialization in the field chosen by the student. It is usual for the student to be required to write a number

of essays on the various subjects of his "doctoraal" examination, the subject of these essays being decided upon by consultation between the student and his professor.
It is the rule, both in the "candidaats" and the "doctoraal" examination, that the faculty can agree to the final examination being preceded by preliminary examinations *(tentamens)*, in which the student is asked questions about sections of his examination studies. Some "tentamens" are purely preparatory in nature, while others take the place of sections of the final examination and count as such, thereby serving to relieve the burden of study the student is required to carry.
Although in theory university studies do not finish until the degree of doctor has been obtained, most students cease their work after having passed the "doctoraal" examination, the engineer's examination or one of the practical examinations mentioned earlier on. The reason for this is that such matters as being qualified to hold certain official appointments, to practise certain professions and to teach are related by law to the "doctoraal" examination, the engineer's examination and the practical examinations, and not to the actual degree of doctor, which is not required for these purposes.[1]
In order to obtain the degree of doctor it is necessary, in addition to passing the examinations, to write a thesis with at least six propositions which must be related to the subjects of the faculty in which it is desired to obtain the doctor's degree. One of the professors (at the technological universities it is one or two professors, at the agricultural university, one or more) acts as the student's "promotor". In consultation with him, the student selects the subject for his thesis and writes it under his guidance. The promotor must also approve the final result and the propositions. The thesis and the propositions have to be printed or reproduced in some other way in a sufficient number of copies, the exact number being determined for each faculty individually. As a rule, about 150 copies have to be put at the university's disposal. The ceremony of "promotion" to the degree of doctor is held in public; it consists of a defence by the "promovendus" of his thesis and propositions and does not last longer than one hour. Should the "promovendus" display exceptional ability, he may be awarded an honours degree, i.e. he passes "cum laude".
The period of study required for the examinations varies considerably from faculty to faculty. In the case of the "candidaats" examination, one should reckon on a period of 1½ to 2 years in the law faculty and on 3 to 5 years in the other faculties. The "doctoraal" examination requires at least 2 to 3 years of study. It is difficult to lay down a definite period for the preparatory work for the degree of doctor, this depending on the nature and scope of the thesis and the time the "promovendus" can spare from his daily work for writing his thesis. One might put the period required in the most favourable circumstances at about 1½ to 2 years.
In order to be admitted to the examinations of a university (or a technological or agricultural university) one is required to be in the possession of a certificate to the effect that one has successfully completed certain preparatory studies. Dutch certificates or diplomas are, of course, the first to be accepted, but legislation has empowered the Crown to designate a number of foreign certificates qualifying one to take the university examinations without any further requirements being made. In addition to this, the Minister of Education can, in individual cases, also grant permission to take the university examinations

[1] The possessors of an academic degree or of a diploma to the effect that they have passed the "doctoraal" or engineer's examination usually place certain letters, either before or after their names: Dr. = Doctor; Ir. = Engineer; the letters Drs. ("Doctorandus"), usually followed by an indication of the faculty or subject, i.e. theol., med., sc. nat., litt., econ., sociol., psych., indicate that one has passed the "doctoraal" examination and is entitled to proceed to the degree of doctor. In the faculty of law, however, an ancient tradition gives the "doctorandus" the right to preface his name with the letters Mr. = "Meester" or Master of Laws.

to the holders of foreign certificates other than those designated by the Crown, after consulting the university concerned. The general rule followed in this respect is that no one can be admitted, who is not in the possession of a certificate which would admit him to the corresponding faculty in the country in which such certificate has been obtained.

F. L. R. SASSEN[1]

[1] Professor Sassen is honorary adviser to the Ministry of Education, Arts and Sciences.

DJAMBATAN / CARTA MUNDI

PUBLISHERS AND CARTOGRAPHERS OF GEOGRAPHICAL AND HISTORICAL ATLASES, WALL MAPS, TOWN PLANS, TOURIST AND ROAD MAPS, ETC.

Recently published:

- **HISTORICAL ATLAS OF THE MUSLIM PEOPLES**
- **A CONCISE HISTORY OF ISLAM**

"No such comprehensive atlas devoted to the expansion and contraction of Islamic power has ever appeared before."

ROYAL CENTRAL ASIAN SOC., LONDON

"Dieser neue Atlas hält eingehender kritischer Prüfung stand."

PROF. DR. JORG CRAEMER, STUTTGART

"I congratulate the Publishing House for bringing out such important publications and wish it every success."

ANWAR SADAAT, SECR. GEN. ISLAMIC CONGRESS, CAIRO

FOR FURTHER PARTICULARS APPLY TO

DJAMBATAN 1077 PRINSENGRACHT AMSTERDAM

EXTRACTS FROM MY DIARY

3rd Oct. 1957
It is my third day in Holland and I am bitterly lonely. What a sudden change from old, dusty and homely India to this new land of different life and shape! The pangs of home-sickness (my little nephew will laugh if he knows that his uncle also remembers home) are an experience in themselves. Every moment my thoughts fly back home to my parents, to my friends and to that small cabin in the remote corner of the house which has always shared deeply in my dreams and actions. There are many Indian faces in the Institute, smiling and active and their sight is sometimes a solace in these lonesome hours . . . but for how long! Even they reflect a kind of strangeness and I am unable to adjust myself. The only relief from this tiring seclusion is to write letters and within the last two days I have written a dozen of them, long letters of remembrances.

9th Nov. 1957
. . . vegetarianism seems to be a curse. They say that I am missing half the charms of life by rejecting the delicious non-vegetarian dishes and mildly ask me to break my rigidity, if at first not in public, then in a lonely room. I wish that I could follow their advice. I know that no religions or orthodox shackles bind me down, nor do I appreciate the idea of dragging down religion to petty eatables. I have hardly any argument to defend myself. I seldom discuss it and yet the so much talked of and relished "chicken" does not attract me . . .

30th Nov. 1957
Modelled on the latest designs and on the assimilation of many foreign factors, big towns do not represent the true life of a country. We were out to see real Holland, a company of thirty students in a bus on a tour of three days. Long awaited sights of windmills, the fertile fields, rich and green, laid out with a network of canals and the pastures with healthy cattle, present an enviably simple and true Holland. Tulip-season has not yet arrived, when the fields will garb themselves in sparkling colours. I am waiting for the Spring! People are cordial and welcomed us. They are simple and unsophisticated. They nod with a smile even without any acquaintance when you look at them. There is a tough expression on their faces which speaks of their contact with the solid earth and the thundering sea. Hard working woman polishing her door knobs with an exquisite care is perhaps the symbol of Dutch life . . .
Our tour consisted of visits to famous art museums. Rembrandt's paintings in Amsterdam reflect a sublime past and so do many others, but modern art puzzles me. A multiplication of geometry and algebra into a framework of various colours baffles my imagination. Nevertheless, it seems that modern Europe is crazy about this. The other day when I asked a young girl for the interpretation of a modern painting, she, with an ecstatic gesture, drew my attention to the unusual harmony, of colours and poor me! trying in vain to find a trace of harmony, of course with my most untrained eye . . .

13th Dec. 1957
I am thinking of leaving the dancing lessons. A few weeks back we were initiated to ball-room-dancing. What a time it was! I was utterly nervous. To hold a young girl, hand to

hand and heart to heart "so near" in public – oh I was not used to it. I was simply blushing in return for her smiles, the selfconsciousness marred the whole rhythm of the music and the lessons of the teacher passed us unaware. I was frequently hurting her feet and in spite of all her attempts to guide me, I was an utter failure. I was wise enough to note her reluctance to be with me. I begged her leave and came to my room. Such was my first dance-evening. This evening I have to go for lessons again. I am rather hesitant and my room-mate is saying how can I learn anything without getting over these petty pitfalls?

2nd Jan. 1958

These Indian students – what a noise they are. The Institute resounds with their laughter and thrills with their speed. In order to adapt themselves to the western life they often overdo it – surpassing a westerner. On the other hand, there are certain fanatic conservatives who will run a K.M. from liquors, smoking and meat. The reference to a girl will put them to a saintly expression of detachment which however is soon washed away by an attack of blushes. It is difficult to trace a normal-easygoing Indian. I wish that I could sketch out one or two, but it seems that they are beyond me.

There is one Mr. A who finds an extra pleasure in his spicy style of conversation and in Johnsonian humour. His yearly harvest of French-cut beard exhibits an extraordinary touch of modern art, though for a few months only. Mr. B., you can say, is the moving Encyclopedia Britannica. His hair unable to protect his overcrowded head slides along the fore-head and suggests an Einsteinian air. Whether dining or playing he is always with books, shuffling his nerves with varied authors. Perhaps in his love-talks he has been quoting author after author. Delicacy of Mr. C. arouses sympathy and pity in the eyes of the beholder. His steps have the grace of "Chikala's gliding" and his talks are the rustling of the spring. Mr. C. is poetry and poetry is Mr. C. Famous as ego-inflated, in truth Mr. D. suffers from ego-deflation. His ascetic gestures fail to conceal his restless hankerings. I wish that I could write of many more, of Miss E., Mr. F. and Mrs. G. but it is enough for to-day. However, one thing is sure, that all of them are very nice people, interesting and affectionate – good friends of mine.

7th Jan. 1958

This afternoon snow fell from heaven. I am so happy. Sacred and pure like Jasmanian flowers, snow descends as if angels are showering their mercy on the Earth. We have been playing snowball since the afternoon. It reminds me of Holi in India, as if we are throwing "Gulal" on each other.

3rd Feb. 1958

Sparkling moon in the clear Dutch sky is a rare sight. To-night is exceptionally pleasant, not even so cold. But, why are these queer thoughts rushing through my mind. What a vast difference between East and West and in the whole outlook towards life. A few hours back I was with a girl, hand in hand, moving slowly along the lake. Softly did say I "How beautiful is the moon" and she nodded with an indifferent smile. She was asking me to go to a restaurant for a cup of coffee. "Truly pleasant is the night, so beautiful in this open air and under starry sky" I said. I was enjoying the weather. "What is beautiful in it?" She was not so happy. I was shocked and disappointed. We passed one hour in a restaurant and to my regret my mind could not concentrate on her talks about films, dresses and her experience in U.S.A. My thoughts were elsewhere. Why have we become so mechanized in our thinking. There is hardly any scope in our appreciation for natural beauty. Why

do European girls, who apparently look so educated and cultured, fail to recognize the softness of the moonlit night. Is it the infliction of industrialization and rationalist materialism which has killed their own individuality and spontaneity? The tall buildings, the glittering streets and posh cars speak of an advancing country. But my mind repeatedly raises the question "Are they really advanced? Aren't they losing the vital touch of life? And is not every country of the world, eastern or western, following the same path, adopting the same pattern? Where is the solution?"

18th Feb. 1958
During the last month many students have joined our Institute. They represent various countries and various cultures and it is a pleasure to live amidst such an International Gathering. And it is peculiar to note that they look so similar, so much akin to us in spite of all diversities.

26th Feb. 1958
They are crazy, indeed they have all gone mad.
Funny masks on the faces, fancy dresses, dancing, drinking and pleasure-making throughout day and night, reminding me of motley crowds of Shakespeare, the whole city enwrapped in an uncontrolled joviality – such is the Carnival festivity, the famous Carnival of Cologne. I was there for two days and it was enough. I did not take part in their fun and farce. I tried, but I simply could not. I was lacking in spirits. Sitting on the steps of the huge cathedral I was looking, all keenness and surprise in my eyes, at the concourse of multicoloured people, as if witnessing some technicolor film . . .
At midnight I was standing at Cologne railway station which was resounding with music and laughter. I was tired and was trying to find a bench somewhere to sit. I walked up to the bookstall and started looking at the magazines. Suddenly someone tightened me in her arms, kissed me and ran away dancing and singing . . . People were laughing, she was drunk and I was spellbound . . .
Oh, these Carnivals, . . . How much I would love to go again.

A. NATH[1]

[1] Mr. Nath, B.Sc., M.A., LL.B., is taking part in the 2-year Social Science Course at the Institute of Social Studies, The Hague.

CHRONICLE

INSTITUTIONS

Institute for the Application of Atomic Energy in Agriculture, (ITAL), at Wageningen

Information: The Director, ITAL, Ritzema Bosweg 32d, Wageningen.

The Institute was founded in January, 1957 as a result of a recommendation to the Netherlands Minister of Agriculture. This recommendation was made by a group of experts who had been asked to study the measures to be taken in the field of agriculture necessitated by the papers published during the first international conference on the peaceful applications of atomic energy at Geneva, in August, 1955.

According to article 3 of its statutes the foundation has as its purpose: "the promotion of agriculture by means of stimulating, advising and performing investigations in the field of the application of ionizing irradiation and the use of radioactive isotopes".

It is the intention to found a new research institute with appropriate irradiation facilities at the agricultural centre at Wageningen. Apart from a "general purpose" radiochemical laboratory for the performance of investigations with the aid of radioactive tracers, a γ-source will be installed. Furthermore, a nuclear research reactor will be developed, adapted to the special use of neutrons for the irradiation of living plants. A laboratory for the treatment of larger amounts of radioactivity will be built in connection with neutron- and γ-sources.

Once the centre is in operation, it will be possible to perform neutron irradiations for practical amelioration work. It will also serve as a basis for systematical and fundamental investigations on the nature of mutation reactions and the influence of physiological circumstances on the effect of neutron irradiation. It is expected that the results of these investigations may lead to improvement in practical work.

As the detailed planning and construction of buildings and installations of an atomic institute require thorough consideration and extensive development work, particularly in regard to the health and public safety hazards involved, the centre at Wageningen will not come into full operation before the end of 1960. In the meantime the Institute has been granted temporary accommodation in the Laboratory Soils and Fertilizers of the Agricultural State University, at 32 d, Ritzema Bosweg, Wageningen.

Although the limited space at present available restricts the possibilities of research in the nuclear field, and the lack of irradiation facilities during the coming three-year period will prevent the application of ionizing radiation, the Institute will try to fulfil its task as a stimulating and advisory organization.

As a start, an extensive documentation on the use of radio-active isotopes and ionizing irradiation in agriculture is planned. The Institute's scientific staff is prepared to provide enlightenment to those research workers in the agricultural field who are interested in the possibilities of the application of isotopes techniques to their problems. The Institute has a variety of nuclear equipment at its disposal, and training courses will be given at regular intervals. The first agriculture training courses in the use of radioactive isotopes will, in fact, be given in the summer of this year (1958).

Besides the national activities of the Institute, the work will be co-ordinated with the various activities of international organizations. Both the Food and Agricultural Organization (F.A.O.) of the United Nations and the food and agriculture division of the Organization for European Economic Co-operation (O.E.E.C.) have been consulted.

As there appears to be great interest in research in the field the Institute will cover, it is planned to extend these contacts further.

(for basic data on each course, see last pages of this Bulletin)

Closing of the Third International Course on Small-Scale Industries

The third International Course on Small-Scale Industries was closed at Delft on April 25, 1958. Among the speakers at the formal closing session was Prof. W. Brand, whose address to the departing participants follows here below.

I am grateful that I have been asked to say a few words on this happy occasion of the graduation of our students. I am not going to make a full-blown speech but rather want to say a few things to the participants who are now leaving us.

During the last five or six months you have been eating and drinking the production, organization and management problems of small industries. You have also seen the deficiencies of some of the small industries in the Netherlands with your own eyes. With the knowledge you acquired at the course, you were able to diagnoze certain faults in the handling of materials, cost accounting, etc., of a kind similar to those you had already encountered in your own countries. I want to impress upon you that this has, indeed, been a rare opportunity. We did not take you to the show places of Holland – I am sure and I hope that you saw some of those too – but in general we have put before you industrial life in the raw, as it really is in the Netherlands. Few people in this country and even few Dutch graduates in engineering or economics are aware of the enormous gap which still exists here in a so-called relatively rich country between what is possible and what is actually being done, between the ideal and reality. The imperfections which you have noticed may have taught you that there is no mystery or secret about economic development or growth. Our human society will probably always remain frail and in need of patching up, but in order to progress to higher levels, a country must possess a group of responsible persons who are constantly striving to do and make things better. You need such people in all walks of life, in the political field and in the social and economic spheres. Your particular responsibility is likely to lie in the industrial field in the near future. The concepts and methods you have been taught here do not furnish you with a ready-made guide for improving existing enterprises and establishing new ones. But having followed the course, you have learnt some of the principles, the scientific and fact-finding approach to problems, which should guide your thinking when you seek to introduce changes which are needed and desirable. And if you apply this knowledge consistently, without being daunted by temporary set-backs, human and external, you and the industry or service with which you are going to be associated are bound to be successful in the end in overcoming whatever difficulties may lie ahead. This course which you have been attending is, and has been, an experiment in international co-operation for economic development. There is probably no other country in the world comparable to the Netherlands in this respect. In Holland, a genuine desire exists to share the knowledge of various techniques and organization which has been accumulated here with other countries, so as to raise standards of living throughout the world. I am proud of this spirit which prevails in our country. But in connection with this particular course on small-scale industries, I also want to assure you that we are not going to rest on our laurels. I feel that we must constantly reconsider the methods which we are using in trying to transmit some of the experience or know-how gained here in the Netherlands to other people. With all due recognition of the hard work done and the devotion shown by the members of the staff, I hope, Mr. Chairman, that I may say that we are sure that the course is not yet perfect, and that we intend to improve on it in the future. We, ourselves, have certain ideas as to the aspects which need strengthening, but we would also like to have the benefit of our students advice. Perhaps you have certain ideas about the organization of or the co-ordination between, the various subjects included in the course. Please give us your comments or write us after you have returned home about subjects which in your opinion should be included, given more stress, or left out in future programmes.

And please do not consider your going away from here as a definite goodbye to Delft. We should like to keep in touch with you, to hear whether you were able to apply some of the knowledge which you absorbed here. We are also anxious to give you a helping hand, if you think that consultation with us may be useful on any problem with which you may be faced in the future.

Godspeed to you all!

Graduate Courses of the Philips International Institute of Technological Studies, Eindhoven, Netherlands

This Institute has been founded by the Philips Industries to enable foreign graduates to carry on studies on any subject that falls within the range of Philips' activities. Very often these subjects are related to electronics, but other possibilities exist also, for instance: light and lighting, X-rays, etc. An individual programme of studies is drawn up for each student in consultation with the Director of the Institute. This programme will be based on the private study of text-books and other relevant literature, in combination with experimental work in the Institute's laboratory, as well as in the factory's own research or design laboratories. Students will thus be brought into direct contact with the experts working in these laboratories.
Another of the Institute's activities is the organization of courses of lectures given by members of the Philips' laboratories' staffs. Two courses of three months each are given every year. The autumn course (October-December) gives basic training in the field of electronics, whereas the spring course (February-May) is on an advanced level. The 1958 course took "Communication Technique" as its main subject. The subject studied during this spring course is not, however, always the same. Other possible subjects are: industrial measurement and control, computer technique, etc. Attendance at these lectures is not compulsory, students being free to choose those subjects that interest them. The courses at the Institute are held in English. The nominal study period in the Philips International Institute is one year and can begin at any date. No tuition-fee is charged. During their stay in Eindhoven, students can receive a cost of living allowance. Travelling costs to and from Eindhoven are not, however, refunded by the Institute. No commitments, either for the student or for Philips exist for a longer relationship between the student and Philips, after the study period has ended. At the end of this period students receive a diploma, stating the subjects studied. Applicants for a place in the Institute should have completed a university, or equivalent, education. Further information can be obtained from Dr. A. van Weel, Director of Studies, The Philips International Institute, Eindhoven Netherlands.

INTERNATIONAL SCIENTIFIC MEETINGS

International Teletraffic Congress

Second international congress on the application of the theory of probability in telephone engineering, organized by the Netherlands, in conjunction with the Netherlands Telecommunication Industries, General Post Office (P.T.T.).

Place: Former Royal Palace, Noordeinde, The Hague.

Date: July 7–11, 1958.

Information: H. van Amstel, Centrale Directie P.T.T., 12 Kortenaerkade, The Hague.

Programme: 1. General; 2. Groups of Lines; 3. Gradings; 4. Overflow; 5. Electronic System; 6. Economics and Planning; 7. Link Systems.

Ninth Congress of the International Astronautical Federation

Place: University of Amsterdam.

Date: August 25–30, 1958.

Information: Mrs. A. F. P. Volten, NUFFIC, 27, Molenstraat, The Hague.

Programme: The first half of the congress will be devoted to administrative affairs. The opening of the plenary session will be on August 27. An excursion has been organized for August 28. August 29 and 30 will be devoted to papers and discussions. The Congress will deal with a wide range of subjects related to non-military aspects of astronautics.
The International Astronautical Federation comprises 24 national societies totalling 15,000 members. It was founded in Paris in 1950 and held its last annual congress in Barcelona.
Chairman of the I.A.F. is Andrew Haley (U.S.A.). Vice-chairmen are: Prof. T. M. Tabanera (Argentine), Dr. J. M. J. Kooy (Netherlands), Prof. Zarakienwisz (Poland), Prof. L. Sedov (Russia) and A. Hjerstrand (Sweden).

Ninth International Congress of Surveyors

organized by the Netherlands Federation of Surveyors for the International Federation of Surveyors.

Place: Scheveningen and Delft.

Date: August 28–September 4, 1958.

Information: Ninth International Congress of Surveyors, 4, Kanaalweg, Delft.

Programme: Meetings of technical commissions: Technical dictionary; Cadastre and rural

reallotment; Instruments and methods-photogrammetry-cartography; Town planning – Reconstruction – Urban reallotment; Junior surveyors; Professional activities and emoluments – Professional training and education.
There will be official receptions and excursions. Provision has been made for a ladies' programme.

First International Congress on Coal Petrology

Place: Heerlen, Netherlands.

Date: September 10–13, 1958.

Information: Secretary, First International Congress on Coal Petrology. Geologisches Landesamt Nordrhein-Westfalen, Philadelphiastr. 156II, Erefeld, Germany.

Programme: This Congress precedes the Fourth International Congress on Carboniferous Stratigraphy and Geology (see below in this section.) The Congress will deal with Coal Petrology (scientific results); Applied Coal Petrology; Applied Carboniferous Coal Sporology.

Fourth International Congress on Carboniferous Stratigraphy and Geology

Organized by the General Committee for the Carboniferous Congresses under the auspices of the Geological Foundation in the Netherlands.

Place: Heerlen.

Date: September 15–20, 1958.

Information: Secretariat of the Fourth International Congress etc., Geologisch Bureau, 86–88, Akerstraat, Heerlen.

Programme: The congress will include a colloquium on stratigraphic nomenclature. Papers will be read, and general lectures will be given on: stratigraphy and paleobotany; stratigraphy and paleozoology; stratigraphy and paleogeography; carboniferous palynology; sedimentology of carboniferous rocks; coal genesis; sedementological phenomena regarding carboniferous rivers; applied geology in general; applied geology in recent exploration in the Netherlands; coal petrology.
The congress will be preceded and followed by excursions to Belgian and German carboniferous exposures, tertiary lignites in Western Germany and quaternary peatbogs in the Netherlands.

Fifth Congress on Differential Anthropology

Organized by the International Bureau of Differential Anthropology.

Place: Royal Tropical Institute, Amsterdam.

Date: September 21–25, 1958.

Information: The Secretary of the Congress, Dr. A. J. van Bork-Feltkamp, Royal Tropical Institute, 2a, Linnaeusstraat, Amsterdam.

Programme: The theme of the congress will be the application of differential anthropology to work, sports and military service.

LIBRARIES AND MUSEUMS

The Tropical Museum at Amsterdam

When the Tropical Museum was founded in 1923, its directors were a doctor of biology and an ethnologist. In later years both of them obtained a professorship at one of our universities. It is obvious, therefore, that from the very beginning the arrangement of the museum should have aimed, among other things, at assembling illustrative material for use in higher education. Both professors often came to the museum with their students to carry out practical work there, which example was followed by other professors and lecturers.
The subject matter, all of which aimed to disseminate knowledge regarding tropical countries and peoples and more particularly about the former Dutch East Indies, Surinam and the Netherlands Antilles, was grouped together in such a way that it was also readily accessible to ordinary visitors to the museum. Most of the latter were made up of those members of the public for whom the "popular universities" had been set up, and of tourists. In the meantime interest was stimulated in the secondary schools and in the higher classes of the elementary schools. The museum assistants were trained to act as guides (for other groups as well), and in 1957 a special room was reserved and equipped with film projectors for giving lessons to what have come to be known as "museum classes". Regular visits are also paid to the museum by cadets of the Royal Naval Institute and by those taking part in courses organized by the Royal Tropical Institute.

It will be obvious from the above that the great variety in the type of person visiting the museum makes great demands as regards the way in which the material has to be displayed, if everyone is to find what he is looking for in the show-cases. The museum does not, of course,

supply sufficient information for those who desire to study its subject matter at the university level. They need facilities for consulting the world literature on this matter as well. To assist them in this study, therefore, documentation systems and an extensive library are available in the Royal Tropical Institute next door.

During the last six years the scope of the Royal Tropical Institute's work has been extended to cover all tropical and sub-tropical areas, thereby providing students with a much wider range of material for the purposes of comparative study. The museum offers them an ideal means of getting their bearings without loss of time, as regards the interplay of the various factors which come to the fore in studying any given subject. For the student is made aware, in an easy, efficient and, at the same time, attractive way, of aspects of his subject which he had not perhaps hitherto adequately recognized, or the scope of which he had not properly realized. By *induction* ,that is, for *de*duction is the investigator's secret. And where is there a better opportunity to carry out this induction than in a museum, which offers one the possibility of obtaining visual impressions and in this particular case, be it remembered, in a museum specially designed for this purpose?

One may ask: for which university studies is the Tropical Museum at Amsterdam particularly suited to supply the illustrative material referred to above?

It is the geographers, the geologists, the ethnologists and sociologists, the biologists, the technologists, chemists and dispensing chemists and the doctors of tropical medicine who, on entering the museum, also enter the field of their own studies. Most visitors will have to find their own way through the museum's topography, though, in doing so, they can always call on the assistance of the museum staff. Practically the whole museum will prove of interest to geographers, ethnologists, sociologists and biologists. Technologists, chemists and dispensing chemists will find much of interest to them there, although distributed over many different places. The geologists and doctors of tropical medicine, on the other hand, can be directed to the relevant section of the museum.

It is obvious that the museum does not comprise a complete collection in respect of all the subjects mentioned above for all the countries of the tropics and the sub-tropics. On the contrary, neither the available space nor the scientific staff is large enough to make that possible. But it may be said that the collections on display in the Tropical Museum are of such variety and of such scientific importance that everyone will find there sufficient material to widen his understanding and to provide the incentive for further study and thus to stimulate and reward further visits.

FOREIGN STUDENTS IN THE NETHERLANDS

Foreign Students Attending Graduate Summer Courses in 1957 and Graduate International Courses in the Academic Year 1957–1958.

Country	Internat. Train. Centre for Aerial Survey				Institute of Social Studies				Agricultural University at Wageningen Summer Courses		Hague Academy of Internat. Law		Internat. course in Hydraulic Engineering Delft	Internat. Course on Small-Scale Industries		Total
	Photogrammetry	Applicat. of Air Photogr. for: Geology	Soil Survey	Forestry	2-Year Course Soc. Sciences 1957–1959 1956–1958	Social Welfare 1957–1958	Publ. Administration	Econ. Planning	Methods and Progr. Planning Rural Extension	Land developt.	1957 Summer Session	Centre of Stud. and Research in Int. Law		6-months course	Europ. course	
Afghanistan									1							1
Argentine											2		1			3
Australia	1								1		3	2				7
Austria											2					2
Bechuanaland									1							1
Belgian Congo										1						1
Belgium							1	1	1	2	9		1			15
Bolivia								1			2					3
Brazil				1	1		1				8	1		1		13
British Guiana									1	1						2
Burma	2			2				1					1	2		8
Cameroons											1	1				2
Canada	2										6		1			9
Ceylon											1					1
Chile											1					1
China												1	4			5
Colombia	1	1									3		1			6
Costa Rica								1								1
Cyprus									1	1						2
Czechoslovakia											3					3
Denmark	1				1				1	3	6					12
Ecuador													1			1
Egypt	2					1	1	1	1	1	15		1			23
Finland					1				1		2		1			5
France									16	2	47	3				68
Germany	1	1							18	4	85	2				111
Ghana						2										2
Greece						1	1			5	11	2		1	1	22
Guatemala	1	1														2
Haiti	1									1						2
Hongkong						1										1
Hungary	1															1
Iceland	1														1	2
India		2	1		10	5	2	1			6	1	4	2		14

Indonesia							2				5					2
Iran	8									3	1		2			14
Iraq	1									4						5
Ireland										1	4					5
Israel	1					1	1	1	2	3	6	1	4			20
Italy	1								5	3	13	2			4	28
Jamaica										1						1
Japan										1	3					4
Jordan						1			2	2						5
Kenya									1							1
Korea							1				1	1				3
Lebanon						1			2							3
Luxemburg	1									1	2					4
Malaya							1									1
Mexico								3			5		1			9
New Zealand													1			1
Nicaragua											1					1
Nigeria	1								1		2					4
Norway	5								3		1	2			2	13
Pakistan					3		2	1	2		6	1	10	3		28
Panama					1											1
Peru											2					2
Philippines	1							1			2					4
Poland								2	1	1	5	2				11
Porto Rico										1						1
Portugal							1				1		3			5
Rhodesia (Northern)										1						1
Rhodesia (Southern)										1						1
Sierra Leone											1					1
Soudan							1									1
South Africa	2	1	2						1	1	1					8
Spain							1	3			9					13
Sweden									1		1					2
Switzerland				2					6	1	4	1				14
Syria	1										2					3
Tanganyika						1				1						2
Thailand	1						1	1			2					5
Tunisia											1					1
Turkey		1					1			3	2	1				8
Uganda										1						1
United Kingdom	4								2	3	24	3	3			39
Uruguay										1	1					2
U.S.A.	3								7	2	34		1			47
U.S.S.R.											4					4
Venezuela								1			2		1			4
Yugoslavia								2	7	8	8		2			27
Stateless											5					5
Total	44	7	3	5	17	14	18	21	86	65	372	27	44	9	8	740

GUEST LECTURERS IN THE NETHERLANDS

Guest lecturers at the Institute of Social Studies, January-June 1958

January:

PROF. R. WILSON, University of Bristol, England – "Priorities and Interrelationships in Social Policy Making".
D. DONNISON, Reader in Social Administration, London School of Economics – "The Administration of Social Welfare Planning".
J. PRICE, International Labour Office, Geneva – "The Functions of Trade Unionism in the Welfare Policy".

February:

REV. MARTIN, Prior of the Abbey of Tioumliline, Morocco – "Successes and Failures of Social Welfare Policy in Morocco".
PROF. A. SAUVY, Institut National d'Etudes Démographiques, France – "Problems of Overpopulation and Underpopulation and their Relevance to Social and Economic Development".
DR. ALBERT MEISTER, Centro di Sociologia della Cooperazione, Ivrea, Italy – "Planning Industrial Communities".
DR. E. PUSIC, Lecturer, Public Administration, University of Zagreb, Yugoslavia – "The Interdependence of Social and Economic Development".

March:

C. M. BENNETT, Aturua, New Zealand –" The Maori Race and its Problem of Cultural Adjustment".
PROF. G. G. GRANGER, Presses Universitaires de France – "The Methodology of Economics".
DR. R. HUWS JONES, Director, Social Science Course, University College of Swansea, England – "Education for Social Planning and for Carrying out Social Plans".
PROF. M. GINSBERG, London, England – "Principles of Social Justice".

April:

S. B. NGCOBO, Fort Hare University, South Africa – "Native Taxation in South Africa".
PROF. H. SCHELSKY, University of Hamburg, Germany – "Changing Family Structures under Conditions of Social and Economic Development".
PROF. E. SCHNEIDER, University of Kiel, Germany – "Applicability of the Keynesian Theory in Non-industrial Countries".
PROF. A. BAYKOV, University of Birmingham, England – "Planning in the U.S.S.R.".
PROF. OSKAR LANGE, Warsaw, Poland – "Planning in Poland".

May:

PROF. W. HOFFMAN, University of Münster, Germany – "The Problem of Long-Range Economic Development".
PROF. P. C. MAHALANOBIS, Indian Statistical Institute – "Planning in India".

June:

PROF. F. B. ZEUTHEN, Copenhagen, Denmark – "Science and Welfare in Economic Policy".

Guest lecturer at the Roman Catholic University of Nymegen

Upon the invitation of the Senate of the Roman Catholic University at Nymegen, PROF. E. L. GAIER of the Louisiana State University (U.S.A.) delivered a series of guest lectures at that university in March 1958; the topics of these lectures were:
"The Social Adaptation of the Adolescent";
"Flux and Influx in Social Psychology";
"Culture and Personality";
"A Method for Investigating Thought Processes";
"The Relationship between Personality Variables and Thinking".

MISCELLANEOUS

The Co-ordinating Secretariat of National Unions of Students[1])

For nearly six years, Leyden ,in the Netherlands, has in its unobtrusive way become known in all corners of the student world, not only as the seat of an old renowned university, but also as a focal point in a unique system of world student co-operation.

In August, 1952, Leyden was chosen by the Supervision Committee of the newly formed International Student Conference over competing bids from Rio de Janeiro and Paris to be the location for a permanent administrative agency which the Conference found it necessary to establish to help carry out the programme of practical student co-operation, planned at the annual Conference.

The Co-ordinating Secretariat of National Unions of Students, with offices in a student hostel at No. 4, Rapenburg, in Leyden, serves the 63 National Unions of Students which participate in the International Student Conference in a number of ways. Firstly, the Secretariat serves as a clearing house of information on student activities and problems in all corners of the world. To take only a recent example, students at the University of Capetown in South Africa are now embarked on a campaign to have student representation on some policy-making bodies of the University. In their efforts, they have found invaluable the experience of National Unions of Students in Denmark, New Zealand, France, Germany, and the United States, which have been faced with the same problem and have found viable solutions to it. Secondly, the Secretariat co-ordinates the efforts of the respective National Unions of Students in implementing the decisions made by the International Student Conference. The most recent Conference, for example, decided upon a long study seminar to be held in Asia during 1958. The rôle of the Secretariat was to solicit invitations from Asian National Unions for this event, submit them for decision to the Supervision Committee, and then to give technical assistance to the National Union designated as host for the seminar in preparation. Thirdly, the Secretariat issues on behalf of the Conference a number of publications which contribute to the regular exchange of information among students and their organizations. These include a magazine of general student interest, "The Student", published eight times a year in English, French, Spanish and Arabic, a monthly Information Bulletin of News of National Union and International Student Conference activities, monthly press releases to 1200 student newspapers in all corners of the world, and other occasional publications on special subjects.

Other activities of COSEC on behalf of the Conference are in such fields as co-ordinating efforts at making available inexpensive student travel (150,000 COSEC international student identity cards distributed last year), organization of international student delegations (recent ones to Africa, South East Asia, and South America), a series of seminars and specialist conferences (student press, travel, regional seminars last year in North Africa, sub-Sahara Africa, Central America, Europe), co-ordination of aid to refugee students, student exchange and scholarship programme, encouragement to student cultural activity through an International Bureau for Cultural Activities at COSEC, detailed studies of problems of higher education in countries where allegations of patterns of suppression of academic freedom and student rights at the university are brought before the Conference.

The International Student Conference began in 1950 with the participation of only 21 National Unions of Students, all from West European and North American countries. At the outset, student representatives found a very broad similarity in their problems and viewpoints and the range of questions discussed by the Conference reflected the character of National Unions from these areas, concerned primarily with providing services to the student bodies they represent, and acting in their interest on the national scale, on such questions as student scholarships and welfare.

However, as the years went by, participation has tripled. And with this increase has come a geometric expansion of the dimensions of the problems which come before the conference. The most striking general observation which can be made of the student world is the very great diversity of problems and student movements. In sharp contrast to the service-orientated West European National Unions are those from Latin American countries.

Here university communities have always been a bastion of freedom, and a rallying point for opposition movements to the military dictator-

[1] In the following article COSEC has kindly met our request for a brief exposé of its activities on behalf of the International Student Conference (Editors).

ships which have plagued many nations in that continent. As such, the university has often been the target of political suppression and this has meant in turn that the crucial issue in the eyes of the student body is the preservation of university autonomy. This has led the National Unions of Students into activity in the political field; to the reproach that the appropriate function of a student organization is to render practical services to the student body, they would reply that the attainment and preservation of academic freedom is a prerequisite for representative student organizations to function in conditions which make the provision of these services possible.

In Africa and Asia, on the other hand, student movements have very often been closely linked with independence movements, which have likewise given a political character to their interest. They feel strongly that collaboration with them must be based on the acceptance of the legitimacy of their aspiration for colonial rule to be eliminated.

How can so many diverse viewpoints fit under the same roof? The answer the ISC has found is in seeking a broad programme of practical activity, which meets the particular interests of all participants. It is certain that the opportunity to come together annually in a spirit of mutual respect and equality has greatly contributed to an understanding of the differing attitudes existing in different regions.

One fundamental necessity exists; there can be no centralized executive power, which might promote misunderstanding and mistrust rather than co-operation and friendship by falling into the hands of a small clique, instead of serving the entire group. This is why from its beginning the Co-ordinating Secretariat has been zealously restricted to the execution of very precise mandates from the Conference, in co-operation with the participating National Unions, and expressly forbidden to make pronouncements or undertake any other activity on its own.

Although the large majority of students in the world are now actively included in the framework of co-operation provided by the ISC, there are two major areas of the world which have not yet played an active role; these are the Middle Eastern areas, where representative National Unions do not yet exist, and the zone comprised by Eastern Europe, the Soviet Union and China, whose national student organizations have to date declined invitations to participate in the Conference. It is hoped that the same spirit of mutual respect and equality which has resulted in the participation of all other student organizations will eventually make universal student co-operation possible.

New Technological University at Eindhoven

The number of institutions of higher education in the Netherlands has recently been increased from ten to eleven with the coming into being of the new Techniological University at Eindhoven, and the governing body of NUFFIC has also undergone extension as a result.

This latest addition to our country's university institutions commenced its work in the autumn of 1957 with two hundred odd students on its rolls. It is planned to accommodate 2,000 in the long run.

The branches of study from which a choice can at present be made are mechanical, electrotechnical and chemical engineering. The following departments have been set up: General Science, Mechanical Engineering, Electro-technics and Chemical Technology, while the subjects being taught comprise philosophy and social science, mathematics, mechanics, physics, chemistry, science of materials, mechanical technology, mechanical engineering, electrotechnics and chemical technics.

The university is housed in a set of new buildings at Eindhoven which are still to undergo considerable extension, but which are already sufficient to accommodate the day-to-day work. Eindhoven is an important centre of industry in the south of the country, and the founding of this second technological university in the Netherlands may help to relieve the first, at Delft, of the pressure exerted upon it in the post-war period by the growing number of students of technical science.

1958 Subsidies for the Netherlands Organization for Pure Scientific Research

The Netherlands Organization for Pure Scientific Research has granted subsidies totalling more than 5,300,000 guilders for 1958. For this year the organization has received a total contribution from the State amounting to 5,700,000 guilders, that is, about one million more than for the preceding year.

In an interview with ANP, the director of the organization expressed his great satisfaction that, in spite of economy measures, the government should have proved ready to make this sum available for pure scientific research. Whereas, formerly, education and science were often the victims of economy measures, said the director, it now appears that the government has changed its course in this respect.

More than half the amount of the subsidies is being given to the Foundation for Fundamental Research into Matter (F.O.M.), in view of the great importance of research work in the field

of physics in general. The increase in the subsidy granted to the F.O.M. is related, among other things, to research on solid matter, which is a main source of attention all over the world at present, and particularly to the working group on thermo-nuclear reactions recently set up by the F.O.M., which group is concerning itself with the problem of guided nuclear fusion. This research project, which for the time being is still confined to the field of pure science, is of great significance as regards the future supply of energy. This is why all countries are anxious to find a solution to the problem, and it may be that the Netherlands can make a considerable contribution towards finding this solution. Moreover, our country must have experts of its own in this field as well and must not lag behind other countries.

Other important subsidies have been granted to the "Radio-radiation of the Sun and Milky Way Foundation" and to the Mathematics Centre at Amsterdam, to the "Netherlands Physics Research Foundation" (S.O.N.), to the "Foundation for Fundamental Research into Matter with X-rays and Electron-rays" (F.O.M.R.E.) and to the Netherlands section taking part in the activities of the International Geophysical Year.

In all, 137 subsidies have been granted, including 64 for the humanities. Numerous applications had to be refused.

(Dutch News-Agency ANP)

A Key to the Culture of the Middle Ages

The Netherlands Organization for Pure Scientific Research has granted a subsidy to the *du Cange* committee, set up under the auspices of the Royal Netherlands Academy of Sciences and Letters. This subsidy is intended for the Netherlands contribution to the international lexicon of medieval Latin up to the beginning of the thirteenth century, which lexicon will provide a key to the culture of the Middle Ages. The Organization has granted a further subsidy for the compilation of a national lexicon of medieval Latin in the Netherlands, extending to the year 1500. The *du Cange* committee has charged Dr. C. A. Bouman with the preparatory work on both projects, which work he is at present engaged upon at the Institute of Medieval History at Utrecht.

In an interview with the Leyden professor, Dr. J. H. Waszink, who is the secretary of the *du Cange* committee, ANP gathered the following information. In the seventeenth century the French medievalist, Charles Dufresne, *sieur du Cange*, designed a great dictionary of medieval Latin to which he gave the title "Glossarium ad Scriptores Mediae er Infimae Latinitatis". This work, consisting of three volumes, appeared in 1678 and was followed by edition after edition, embodying numerous additions. A gigantic achievement in its day, it has long been the only guide to the reading of medieval Latin, and a reprint of the last edition was, indeed, issued as late as 1938. But neither du cange nor his subsequent editors were able to make abstracts from all the sources, while since their days a large number of texts – and particularly collections of documents – have been published which were unknown to them.

Thus, since in many cases *du Cange's* work could not help those who consulted it, a growing need was felt for a lexicon of medieval Latin which would be as complete as possible. It was fully realized, however, that a dictionary of this kind could only be put together by means of international co-operation, for many words in medieval Latin are derived from the vernacular tongues and given Latin endings. This is true, for instance, of latinized Catalan legal terms, of definitions in the ancient "polder" laws, as met with in the Netherlands and Northern Italy, and of terms used in military science – in short, it is true of all departments of life.

The initiative for the compilation of an international dictionary of this nature has come from the "Union Académique Internationale", an organization which charges itself with the execution of projects which are too big for the individual national academies to tackle. The Union Académique Internationale at Brussels has succeeded in obtaining the co-operation of ten countries for carrying out this plan. *Du Cange* committees have been set up in all these countries and these committees in their turn have appointed persons to co-operate on the work. In the Netherlands 25 such persons have been appointed. The final editing of this international dictionary of medieval Latin will rest with Dr. F. Blatt, professor in the University of Aarhus, Denmark. The international dictionary will run up to the year 1200, for after that date far more classical Latin began to be written once again, an attempt having been made to substitute classical Latin terms for the bastard expressions. At the moment, all the words under the letter L, with which the work has been commenced, are ready, while those under the letter M, on which the team is at present engaged, will appear in the course of this year. As has been said above, Dr. Bouman has now embarked on preparations for a lexicon of the medieval Latin of the Northern Netherlands. This dictionary will run till the end of the fifteenth century, with the exception of humanist Latin. Whereas the material for the period up to 1200 is already more or less complete as a result of participation on the work of compiling

the international lexicon, a great amount of work remains to be done on the period 1200–1500, calling, among other things, for abstracts to be made from the works of the many chroniclers of the fifteenth century and from the writings of the authors of modern devotional works. *(Dutch News-Agency ANP)*

Honorary Doctorate in Groningen for Professor E. C. Crosby

The Senate of the State University at Groningen has decided to award an honorary degree of doctor of medicine to Professor Dr. Elizabeth C. Crosby, of the University of Michigan at Ann Arbour (U.S.A.) in view of her many and original contributions in the field of neuro-anatomy, her wide and deep knowledge of the structure and function of the nervous system, and in view of the excellent way in which over a long period of years she has put this knowledge at the service both of science and of numerous patients.
The Senate has received word from Professor Crosby that she will be happy to accept this honorary doctorate. The date on which the ceremony is to be held will be made known later. The promotor will be Professor Dr. J. Ariëns Kappers.

Honorary Dutch Doctorate for Professor Tage Kemp of Copenhagen

An honorary doctor's degree in the Faculty of Medicine has been awarded to Tage Kemp, Professor of Genetics in the University of Copenhagen, by the State University at Utrecht on the occasion of the celebration of the latter university's 322nd *dies natalis*. At the moment, Tage Kemp is one of the world's most eminent research workers in the field of diseases and congenital deformities in man, based on heredity. The son of a Danish minister of religion, he was born on August 28, 1896, and studied medicine at the University of Copenhagen.
He was alive to the influence exterior factors can have on the origin of congenital deformity, but he was also convinced of the significance of hereditary predisposition in this respect. In later years he has devoted special attention to the study of hereditary predisposition which can lie at the root of human diseases and congenital deformities. In 1938, Tage Kemp was appointed to the chair of human heredity at the University of Copenhagen, being the first ever to occupy this chair.
The building of his laboratory was financed by the Rockefeller Foundation. Professor Kemp has made medico-genetic registration the main concern of his institute, where cases of diseases and congenital deformities the causes of which can lie in heredity, are recorded. As a result, he has come to acquire valuable data on the frequency of hereditary complaints in Denmark and on their geographical incidence.
Professor Tage Kemp has done more in his life than make himself known as an excellent, critical and objective research worker. He has also succeeded in arousing an interest in *anthropogenetica* among doctors and students of medicine in Denmark, while his text-book, which appeared in Copenhagen in 1951 under the title of *Genetics and Diseases*, bears witness to his didactic gifts.

Distinction for the Dutch Neurologist, J. J. G. Prick of Nymegen

Dr. J. J. G. Prick, professor in the Roman Catholic University at Nymegen, has been made an honorary foreign member of the *Société Française de Neurologie*. This distinction has been conferred on Professor Prick for his work in neurology and particularly for his many publications in this field, which publications have attracted a great deal of attention in other countries besides his own. Some years ago, Professor Prick worked in Paris for a period as a member of an international team to combat poliomyelitis.

DOCTORAL DISSERTATIONS

Law

HOEVEN, JOHANNES VAN DER. *De plaats van de grondwet in het constitutionele recht. Enkele opmerkingen over betekenis en functie van de grondwet in het geheel der constitutionele verhoudingen.* (The Place of the "Act of the Constitution" in General Constitutional Law. Some observations on the significance and function of the "Act of the Constitution" in the general complex of constitutional relations). Zwolle, 1958.
With a summary in English.
Municipal University of Amsterdam.

MATHIJSEN, PETRUS SERVATIUS RENOLDUS FRANCISCUS. *Le droit de la Communauté Européenne du Charbon et de l'Acier. Une étude des sources.* The Hague, 1957.
With a summary in English.
State University at Leyden.

STEENBEEK, JAN GERHARD. *Rechtshandeling en rechtsgevolg in het staats- en administratief recht;* (The Legal Transaction and its Legal Consequences in State and Administrative Law). Assen, 1958.
With a summary in French.
State University at Utrecht.

VISSER 'T HOOFT, HENDRIK PHILIP. *Les Nations Unies et la conservation des ressources de la mer. Etude des rapports entre le codificateur et le milieu politique.* The Hague, 1957.
State University at Leyden.

Medicine

BAKKER-SAUER, ELIDA KATHARINA. *Schildklierweefsel en thyreotroop hormoon. Een onderzoek naar de reactie van schildklierweefsel van kippenembryo's in vitro op toegevoegd thyreotroop hormoon;* (Thyroid Tissua and Thyreotrope Hormone. An investigation of the reaction of thyroid tissue of chicken embryos in vitro to added thyreotrope hormone). Leyden, 1957.
With a summary in English.
State University at Leyden.

BARKMAN, JAN JOHANNES. *On the Ecology of Cryptogamic Epiphytes. With special reference to the Netherlands.* Assen, 1958.
State University at Leyden.

BEKS, JOHANNES WALTHERUS FRANCISCUS. *Moeilijkheden bij de histologische diagnostiek van bloedvatgezwellen.* (Difficulties Encountered with the Histological Diagnosis of Arterial Tumours). Eindhoven, 1957.
With summaries in English, French and German.
Roman Catholic University at Nymegen.

BERREKLOUW, SALOMON. *Bepaling van de circulatie-tijd met een foto-electrische methode (de haemoreflector).* (Photoelectric Circulation Time Determination). Amsterdam, 1958.
With a summary in English.
Municipal University of Amsterdam.

BIERMAN, THEODOR ARTHUR. *Sudden Perceptive Deafness.* Leyden, 1957.
With summaries in French, German and Spanish.
State University at Leyden.

BIRKENHAGER, WILLEM HENDRIKUS. *Struma congenita.* (Congenital Goitre). Rotterdam, 1953.
With a summary in English.
Municipal University of Amsterdam.

BIJVOET, PAUL. *Aethanolpraecipitatie analyse van histonen.* (Ethanol Precipitation Analysis of Histones). Doorn, 1958.
With a summary in English.
State University at Utrecht.

DEKKER, ARENTJE. *Truncus arteriosus persistens en atresie van een ostium arteriosum ("pseudotruncus").* (Truncus arteriosus persistens and atresia of an ostium arteriosum (pseudo truncus)). Leyden, 1957.
With summaries in English and French.
State University at Leyden.

HAEFTEN, FREDERIK FERDINAND VAN. *Differentiation Induced by Chorioallantoic Grafting of Tissue Homogenate.* Amsterdam, 1958.
With summaries in French and German.
State University at Leyden.

HUFFSTADT, ADOLF JOHAN CASIMIR. *Vrije peestransplantatie bij de behandeling van buigpeesletsels aan duim en vingers.* (Free Transplantation of Tendons in the Treatment of Injury to Thumb and Finger Tendons). Assen, 1958.
With a summary in English.
State University at Groningen.

JANSEN-EMMER, ELISABETH MARGARETHA. *Bijdrage tot de kennis van het aandeel van de huisarts in de geneeskundige verzorging van de Amsterdamse bevolking.* (Contribution to the Knowledge of the Family Doctor's Share in the Medical Care of the Inhabitants of Amsterdam). Zeist 1958.
Municipal University of Amsterdam.

KYLSTRA, J. A. *Lavage of the Lung.* Amsterdam, 1958.
With summaries in French and German.
State University at Leyden.

LOS, JOHANNES AUGUSTINUS. *De embryonale ontwikkeling van de venae pulmonales en de sinus coronarius bij de mens.* (The Development of the Pulmonary Veins and the Coronary Sinus in the Human Embryo). Leyden, 1958.
With conclusions and a summary in English.
State University at Leyden.

MEININGER, JAN VALENTIJN. *De patient en zijn geneesheer. Een bijdrage tot de ontwikkeling van het begrip communicatie.* (The Patient and the Physician. A contribution to the development of the concept of communication). The Hague, 1958.
With a summary in English.
State University at Leyden.

MENSCH, MARIE HELENE. *Enige onderzoekingen over de pharmacologie van het centrale zenuwstelsel.* (Some investigations on the Pharmacology of the Central Nervous System). 1958.
With a summary in English.
State University at Utrecht.

MEYER, HANS JUERG. *Ueber Riesenfaltenbildung im Magen.* 1958.
With a summary in Dutch.
Municipal University of Amsterdam.

OLTHUIS, GERARD. *Geleide bloeddrukverlaging door ganglionblokkade en haar toepassing bij hersenoperaties.* (Guided Reduction of Blood Pressure bij Means of Blocking the Ganglion, and its Application in Brain operations). Nymegen, 1957.
With summaries in English and French.
Roman Catholic University at Nymegen.

QUAST, WILLEM HANS ARENT. *Stompe thoraxletsels. Therapeutische ervaringen bij een reeks van 666 patienten met een thoraxletsel.* (Blunt Obstructions in the Thorax. Therapeutic experience with a set of 240 patients with thoracic obstructions). Groningen, 1958.
With a summary in English.
State University at Groningen.

RIJKEN, GERRIT. *Onderzoekingen over de centrale veneuse bloeddruk.* (Investigations on Central Venous Blood Pressure). Utrecht, 1958.
With a summary in English.
State University at Utrecht.

Science

ALLART, JAN HOUTERMAN. *The Geology and Petrology of the Trois Seigneurs Massif, Pyrénées, France.* Leyden, 1958.
State University at Leyden.

ARKEL, GERARDUS ANNE. *Modification of Ultraviolet and Formaldehyde Mutagenesis in Aspergillus Nidulans.* Utrecht, 1958.
State University at Utrecht.

BOUMANS, ALEX ANNE. *Streaming Currents in Turbulent Flows and Metal Capillaries.* The Hague, 1957.
With a summary in Dutch.
State University at Utrecht.

CERFONTAIN, HANS. *Photo-oxidation of Azouthane.* The Hague, 1958.
With a summary in Dutch.
Municipal University of Amsterdam.

COMPAGNIE, JOHANNES. *Wederzijdse beinvloeding van groepen in steroïden.* (Bi-lateral Influence of Groups in Steroids). The Hague, 1958.
With a summary in English.
State University at Leyden.

DUIN, PIETER JOHANNES VAN. *Physisch-chemische eigenschappen van het poly-electrolyt chitosan in oplossing.* (Physico-chemical characteristics of the Poly-electrolyte Chitosan in Solution). The Hague, 1957.
With a summary in English.
State University at Leyden.

DYMANUS, ANTONI. *Intensity Measurements in the Microwave Spectroscopy of Gases.* The Hague, 1958.
With a summary in Dutch.
State University at Utrecht.

EVENHUIS, HENDRIK HARMANNUS. *Een oecologisch onderzoek over de appelbloedluis, Eriosoma lanigerum (Hausm.), en haar parasiet Aphelinus mali (Hald.) in Nederland.* (Ecological Investigations on the Woolly Aphid, Eriosoma Lanigerum (Hausm.), and its Parasite Aphelinus Mali (Hald.) in the Netherlands.) Wageningen, 1958.
With a summary in English.
State University at Groningen.

FEER, YGO VAN DER. *The Determination of Cardiac Output by the Injection Method.* The Hague, 1958.
With a summary in Dutch.
State University at Utrecht.

HARDEMAN, GEORGE EDUARD GERARD. *Resonantie en relaxatie van protonspins in een antiferromagnetisch kristal.* (Resonance and Relaxation of Proton Spins in an Antiferromagnetic Crystal). Leyden, 1957.
With a summary in English.
State University at Leyden.

HOOGENSTRAATEN, WILLY. *Electron Traps in Zinc-Sulphide Phosphors.* 1958.
With a summary in Dutch.
Municipal University of Amsterdam.

HOREMAN, HENRICUS WILHELMUS. *Comparison of Methods for Measuring Peripheral Blood Flow.* The Hague, 1958.
With a summary in Dutch.
State University at Utrecht.

HUISKAMP, WILLEMINUS JAN. *Circular Polarization of Gamma Rays Emitted from Oriented Nuclei.* Utrecht, 1958.
With a summary in Dutch.
State University at Leyden.

KLOET, KEES DE. *Onderzoekingen over de invloed van zwaveltekort op de normale en de alloxaan-diabetische rat.* (Investigations Concerning the Influence of Sulphur-Deficiency upon the Normal and the Alloxan-Diabetic Rat.) Utrecht, 1958.
With a summary in English.
State University at Utrecht.

KOMMANDEUR, JAN. *Photoconduction of Single Crystals of Aromatic Hydrocarbons.* The Hague, 1958.
With a summary in Dutch.
Municipal University of Amsterdam.

MAREL, LEENDERT CORNELIS VAN DER. *Paramagnetische relaxatie bij lage temperaturen en lage frequenties.* (Paramagnetic Relaxation at Low Temperatures and Low Frequencies). Leyden, 1958.
With a summary in English.
State University at Leyden.

MEIJERS, TOBIAS. *Een onderzoek van het linneon Valeriana officinalis L. in Nederland.* (An Inquiry into the Linneon, Valeriana Officinalis L. in the Netherlands). The Hague, 1957.
With a summary in German.
State University at Leyden.

PRINS, HENDRIK KLAAS. *Chromatografische onderzoekingen over menselijke haemoglobinen.* (Chromotographie Investigations with Reference to Human Haemoglobins). Groningen, 1958.
With a summary in English.
State University at Groningen.

VLIJM, LAMBERTUS. *On the Production of Hormones in the Thyroid Gland of Birds (Cockerels). A quantitative study with the help of radioiodine and antithyroid drugs.* Leyden, 1957.
Free (Reformed) University of Amsterdam.

VOS, FRANCISCUS CORNELIS DE. *The Experimental Determination of Dielectric Properties at Frequencies between 50 c/s and 5000 M c/s.* The Hague, 1958.
State University at Leyden.

WIELINGA, DOUWE TACO. *Deductieve onderzoekingen over aard en ontstaan van betrekkingen tussen biologische kenmerken. (Een biodynamische studie aan haring.)* (Deductive Investigations on the Nature and Origin of Relations between Biological Characters (A biodynamic study of herring).) Groningen, 1958.
With a summary in English.
State University at Groningen.

Arts

BOEKEL, CORNELIS WILHELMUS VAN. *Katharsis. Een filologische reconstructie van de psychologie van Aristoteles omtrent het gevoelsleven.* (Catharsis. A Philological Reconstruction of Aristotle's Psychology of the Emotions). Utrecht, 1957.
With summaries in English, French and German.
Roman Catholic University at Nymegen.

CONRADIE, PIETER JACOBUS. *Herakles in die Griekse tragedie. 'n Letterkundige studie (Herakles in Greek Tragedy).* Groningen, 1958.
With a summary in English.
State University at Utrecht.

HUMMELEN, WILLEM MARINUS HENDRIK. *De sinnekens in het rederijkersdrama.* (The Allegorical Figures in Rhetorician Drama). Groningen, 1958.
With a summary in German.
State University at Groningen.

LIGT, JAN VAN DER. *Die Symbolik in den Romanen Gertrud von le Forts.* Breukelen, 1958.
State University at Utrecht.

SCHMIDT, CORNELIS. *De concessieve voegwoordelijke bijzin in het Nederlands van de Middeleeuwen en de zeventiende eeuw.* (The Concessive Conjunctive Subordinate Clause in Medieval and 17th Century Dutch). 1958.
With a summary in German.
State University at Groningen.

SCHURING, HENDRIKUS ALBERTUS. *De invloed van het landschap op de militaire operaties tijdens de Tweede Wereldoorlog.* (The Influence of the Landscape on Military Operations During the Second World War). Aalten, 1958.
With a summary in English.
State University of Utrecht.

Technical Science

BOIS, WILLEM FREDERIK DU. *Vezelwrijving en vezelparalleliteit.* (Fibre Friction and Fibre Parallelity). Delft, 1958.
With a summary in English.
Technological University at Delft.

HOOP, ADRIANUS TEUNIS DE. *Representation Theorems for the Displacement in an Elastic Solid and their Application to Elastodynamic Diffraction Theory.* The Hague, 1958.
With a summary in Dutch.
Technological University at Delft.

ONG, TJING GIE. *Warmtedoorgang en kristallisatie.* (Heat Penetration and Crystalization). The Hague, 1957.
With a summary in English.
Technological University at Delft.

OOSTING, MARGINUS. *Enige beschouwingen in verband met de bepaling van sporenelementen in organisch materiaal.* (Some observations with regard to the Determination of Trace Elements in Organic material). 1958.
With a summary in French.
Technological University at Delft.

WEVERS, CAREL JOHANNES HENDRIK. *Onderzoek van ionenwisselaars met behulp van percolatietechniek.* (Research on Ion Exchangers by Means of the Percolation-Technique). Delft, 1958.
With a summary in English.
Technological University at Delft.

Agricultural Science

AARTS, JOANNES FRANCISCUS THEODORUS. *Over de houdbaarheid van snijbloemen.* (On the Durability of Cut Flowers). Wageningen, 1957.
With a summary in English.
Agricultural University at Wageningen.

CORSTEN, LEO CASPAR ANTOON. *Vectors, a Tool in Statistical Regression Theory.* Wageningen, 1957.
With a summary in Dutch.
Agricultural University at Wageningen.

MEEL, CORNELIS JOHANNES VAN. *Enkele aspecten van de Franse landbouw.* (Some Aspects of French Farming). 's-Hertogenbosch, 1957.
Agricultural University at Wageningen.

RAGETLI, H. W. J. *Onderzoekingen over een virusremstof voorkomend in Dianthus cariophyllus L. Werkingsspectrum, remmingsmechanisme en aard.* (Behaviour and Nature of a Virus Inhibitor Occurring in Dianthus Caryophillus L.). Wageningen, 1957.
With a summary in English.
Agricultural University at Wageningen.

SNEEP, JACOBUS. *De stand van de veredeling bij spinazie.* (The Present Position of Spinach Breeding). Alkmaar, 1957.
With a summary in English.
Agricultural University at Wageningen.

VEEN, JACOB HENDRIK VAN DER. *Studies on the Inheritance of Leaf Shape in Nicotiana Tabacum L.* The Hague, 1957.
Agricultural University at Wageningen.

Economics

LOEB, GUSTAAF FRITS. *Industrialization and Balanced Growth. With special reference to Brazil.* Groningen, 1957.
Netherlands School of Economics at Rotterdam.

PLESSIS, FREDERICH JOHANNES DU. *Wisselkoersmanipulasie as instrument vir die ekonomiese politiek van die owerheid.* (Manipulation of the Rate of Exchange as an Instrument of Government Economic Policy). Amsterdam, 1958.
With a summary in English.
Free (Reformed) University of Amsterdam.

SCHOLARSHIPS AND FELLOWSHIPS FOR FOREIGN STUDENTS, TENABLE IN THE NETHERLANDS [1])

Netherlands Universities Foundation for International Co-operation

27, Molenstraat, The Hague.

a. Scholarships for study at the Institute of Social Studies; *b.* Fellowships for study at the Institute of Social Studies; *c.* A limited number of other scholarships and fellowships.

1. *a.* Social Sciences (Two-Year Course),
   b. Public Administration,
   c. Unrestricted.
2. *a–b.* Institute of Social Studies, The Hague,
   c. The Netherlands.
3. Available to nationals of *all countries;* candidates must have for *a.* M.A. degree in social sciences, or its equivalent; for *b.* graduate (or equivalent) intellectual standard at and preferably some years of experience at middle or higher level of the public service; for *c.* advanced graduate status.
4. *a.* Fl 6080 (Two-Year Course in the Social Sciences),
   b. Fl. 2100 (Six-Month Course in Public Administration),
   c. Unspecified.
5. *a.* 16 months; *b.* 6 months; *c.* unspecified.
6. Unspecified[2].
7. *a–b.* The Rector, Institute of Social Studies, 27, Molenstraat, The Hague: *a.* by 30 June; *b.* by 15 October; *c.* Netherlands Universities Foundation for International Co-operation, 27, Molenstraat, The Hague.

Government of the Netherlands

Ministry of Education, Arts and Science, The Hague.
Exchange Scholarships of the Netherlands.
Netherlands-Belgian Cultural Convention.

1. Unrestricted.
2. Netherlands.
3. Available to *Belgian* nationals; must have university degree or have completed several years' higher study.
4. Fl. 300 per month plus tuition.
5. 1 to 6 months[1].
6. The Convention provides for exchanges of approx. 90 months; number awarded depends on the duration of each scholarship[2].
7. Ministère de l'Instruction Publique, Brussels, Belgium, in May.

Government of the Netherlands

Ministry of Education, Arts and Sciences, The Hague.
Exchange Scholarships of the Netherlands.

a. Anglo-Dutch Cultural Convention.
b. Netherlands-French Cultural Convention

1. Unrestricted.
2. Netherlands.
3. Available to *a. British* nationals; must have a university degree or have completed several years' higher study; *b.* nationals of *France* who have completed several years' higher study.
4. Fl. 300 per month plus tuition.
5. *a.* 1 academic year; *b.* 1 to 6 months.
6. *a.* 5[2]; *b.* the Convention provides for exchanges of approx. 90 months; number awarded depends on the duration of each scholarship[2].
7. *a.* The Controller, Education Division, The British Council, 65 Davies Street, London, W. 1, England, by March 12;
   b. Office National des Universités et Ecoles Françaises, 95 Boulevard Raspail, Paris-6e, France, in May.

Government of the Netherlands

Ministry of Education, Arts and Sciences, The Hague.
Netherlands Government Scholarships.

1. Unrestricted.
2. Netherlands.
3. Available to nationals of *a.* Australia; *b.* Austria; *c.* Canada; *d.* Denmark; *e.* Germany; *f.* Iceland; *g.* India; *h.* Israel; *i.* Norway; *j.* Spain; *k.* Sweden; *l.* Yugoslavia; must have university degree or have completed several years' higher study.
4. ± Fl. 2700 plus tuition.
5. 1 academic year.
6. *a.* 3; *b.* 2; *c.* 1; *d.* 1; *e.* 3; *f.* 1; *g.* 1; *h.* 1; *i.* 2; *j.* 1; *k.* 1; *l.* 2.
7. *Australia:* Office of Education of the Commonwealth of Australia, Canberra;
   Austria: Bundesministerium für Unterricht, Minoritenplatz 1, Vienna; *Canada:* Netherlands Embassy, Ottawa; *Denmark:* Ministry of Education, Copenhagen; *Germany:* Deutscher Akademischer Austausch-

The figures in the margin refer to: 1: field of study; 2: where tenable; 3: conditions; 4: value; 5: duration; 6: number available; 7: address for applications.
A "1" added after the duration of the scholarship indicates that it is renewable or extendible. A "2" added after the number of scholarships available indicates that the same award will be offered for 1958–'59.

dienst, Nassestrasse 11a, Bonn; *Iceland:* Ministry of Education, Reykjavik; *India:* Ministry of Foreign Affairs, New Delhi; *Israel:* Netherlands Legation, Jerusalem; *Norway:* Kontoret for culturelt samkven med utlandet, Oslo; *Spain:* Direccion General de Relaciones Culturales, Madrid; *Sweden:* The Swedish Institute, Jungsgaten 42, Stockholm; *Yugoslavia:* Commission for Foreign Cultural Relations, Bircaninova 6, Belgrade.

Government of the Netherlands

Ministry of Education, Arts and Sciences, The Hague.
Exchange Scholarships of the Netherlands.
Cultural Convention with Luxembourg.

1. Unrestricted.
2. Netherlands.
3. Available to nationals of *Luxembourg;* must have completed several years' higher study.
4. Fl. 300 per month plus tuition.
5. 1 to 3 months[1].
6. The Convention provides for exchanges of approx. 12 months; number awarded depends on the duration of each scholarship[2].
7. Ministère de l'Education Nationale, Luxembourg.

Government of the Netherlands

Ministry of Education, Arts and Sciences, The Hague.
Exchange Scholarship of the Netherlands.
Cultural Convention with Italy.

1. Unrestricted.
2. Netherlands.
3. Available to nationals of *Italy*, must have university degree or have completed several years' higher study.
4. Fl. 300 per month plus tuition.
5. 8 months.
6. 3[2].
7. Direzione Generale delle Relazioni Culturali, Ministere degli Affari Esteri, Piazza Firenze 27, Rome, Italy.

Government of the Netherlands

Ministry of Education, Arts and Sciences, The Hague.
Netherlands Government Scholarships.

1. Unrestricted.
2. Netherlands.
3. Available to *South African* graduates and undergraduates.
4. Fl. 3.000 plus tuition.
5. 1 academic year.
6. 10[2].
7. Genootschap Nederland-Suid-Afrika, p/a Prof. Dr. D. Pont, Waterkloofweg 266, Pretoria, South Africa.

Government of the Netherlands

Ministry of Education, Arts and Sciences, The Hague.
a. Hendrik A. van Coenen Torchiana Scholarship. *b.* Edward W. Bok Scholarship. *c.* Hendrik Willem van Loon Scholarship.

1. Unrestricted.
2. Netherlands.
3. Available to nationals of U.S.A.; age preferably under 28; must have bachelor's degree; applicants in the field of medicine must have M.D. degree; some knowledge of Dutch language desirable.
4. Fl. 2.700 plus tuition.
5. 1 academic year.
6. *a.* 1[2]; *b.* 1[2]; *c.* 1[2].
7. U.S. Student Department, Institute of International Education, 1 East 67th Street, New York 21, N.Y., U.S.A. by 1 March.

Government of the Netherlands

Ministry of Education, Arts and Sciences, The Hague.
Scholarships for Netherlands Summer Courses-

1. Subjects included in Dutch university summer courses.
2. Netherlands.
3. Available to nationals of *Italy* and *Spain.*
4. Fl. 400.
5. 1 month.
6. 7[2]: 3 to Italy; 4 to Spain.
7. *Italy:* Direzione Generale delle Relazioni Culturali, Ministero degli Affari Esteri, Piazza Firenze 27, Rome;
   Spain: Dirección General de Relaciones Culturales, Madrid.

Free (Reformed) University of Amsterdam

162, Keizersgracht, Amsterdam.
Scholarships.

1. Theology, philosophy, arts, medicine, law, natural sciences (chemistry, physics, mathematics, biology), social and economic sciences.
2. Netherlands: Free Reformed University of Amsterdam.
3. Available to nationals of *all countries;* must be educated to university entrance standard. Awards are to enable recipients to acquire academic knowledge based on Christian principles.

4. Maintenance, tuition and an amount for incidental expenses.
5. 1 academic year.
6. 4[2].
7. Secretary of the International Relations Committee, Vrije Universiteit te Amsterdam, Keizersgracht 166, Amsterdam, April 15.

Netherlands Organization for Pure Scientific Research

60, Lange Voorhout, The Hague.
Exchange Fellowships for Scientific Research.
1. Scientific research.
2. Netherlands.
3. Available to *French* nationals who are scientific research workers of proven ability, in exchange for similar facilities for Netherlands research workers offered by the National Council for Scientific Research in Paris.
4. Covers transportation, maintenance and research facilities.
5. Varies in individual cases.[1]
6. Unspecified[2]; as the convention between the Netherlands and the CNSR provides for exchanges of 30 months of fellowships in an academic year, number awarded depends on duration of each award.
7. Monsieur le Directeur du CNRS, 4e Bureau Echanges, 13 quai Anatole-France, Paris-7e, France.

Utrecht Observatory

2, Zonnenburg, Utrecht.
Exchange Assistantship.
1. Astronomy.
2. Netherlands: Utrecht Observatory.
3. Available, on an exchange basis, to students of theoretical or observational astrophysics in *any country*.
4. Exchange of salary.
5. Approx. 3 months.
6. 1[2].
7. Utrecht Observatory, University of Utrecht, 2, Zonnenburg, Utrecht.

Hague Academy of International Law

Peace Palace, The Hague.
Scholarships for the Academy's summer sessions, offered by various governments and by private and public institutions.
1. International law.
2. The Hague Academy of International Law.
3. Applicants' antecedents should qualify them to benefit from the tuition.
4. in 1958: Fl. 300, covering approximate expenses during the three-week session. Travelling expenses will not be refunded.
5. July – August, 1958.
6. No more than two scholarships can be awarded in respect of each country during the same year. This rule does not apply to scholarships instituted in a country for the benefit of its nationals, the award of which has been entrusted to the Curatorium of the Academy.
7. Secretariat of the Hague Academy of International Law, The Peace Palace, The Hague, before April 1.

French Institute in Amsterdam

Maison Descartes, 11, Museumplein, Amsterdam.
Donor: French Government.
Research Fellowships.
1. Unrestricted.
2. Netherlands: Maison Descartes, Amsterdam.
3. Available to *French* nationals engaged in study or research work for which documentation is available only in the Netherlands. Candidates must submit a plan of study with their applications.
4. Fl. 325.— (covers maintenance); room provided at Maison Descartes; transportation Paris-Amsterdam in certain cases.
5. 1 to 10 months, between October 1 and July 31.
6. Unspecified[2] (grants awarded are for a total of 50 months).
7. M. Henri Gouhier, professeur à la Sorbonne, 21 Boulevard Flandrin, Paris-16e, France, by May 1.

Fulbright Program

Scholarships in the Netherlands, Fulbright Agreement, U.S.A.–Netherlands.
1. Unrestricted.
2. Netherlands.
3. Available for U.S. citizens – students must have college-education at least; teachers M.A.; Lecturers Ph.D. degree.
4. *f* 538 per month + tuition (students)
   f 1284 „ „ (teachers)
   f 1350—*f* 1680 per month (lecturers)
   Travel costs paid to and from the Netherlands.
6. Approximate figures: 20 lecturers, 30 students, 20 teachers[2].
5. Duration: 9 months (students, lecturers), 10 months (teachers).

7. For students:
   Institute of International Education,
   1 East 67th Street, New York 21, N.Y.
   For teachers:
   Office of Education,
   Department of Health, Education and Welfare, Independence Avenue, Washington 25, D.C.
   For lecturers:
   Conference Board of Associated Research Councils, 2101 Constitution Avenue, Washington 25, D.C.

Canada Council

a. Senior Fellowships;

b. Pre-Doctor's Degree Fellowships.

1. Unrestricted.
2. Netherlands.
3. Available to residents in Canada or Canadians living abroad *a.* scholars and teachers having a well-established record in the arts, humanities or social sciences. *b.* candidates are required to hold a Master's degree or have equivalent training; the proposed study must lead to a Doctor's degree.
4. *a.* average value of $ 4000 (plus travel allowance, plus two-thirds of travel allowance for wife) – subject in the case of members of university faculties and of Government Departments and agencies to the provision by the employer of an appropriate salary allowance.
   b. average value of $ 2000 plus travel allowance.
5. *a.* one year; *b.* one year[2].
6. Unspecified.
7. The Secretary, The Canada Council, 140, Wellington Street, Ottawa, Canada.
   a. by December 15; *b.* by January 15.

BASIC DATA ON INTERNATIONAL COURSES OFFERED IN THE NETHERLANDS [1])

(see also the „International Courses" Section in this Bulletin)

Institute of Social Studies

Information: The Rector, Institute of Social Studies, 27, Molenstraat, The Hague.

COURSES OFFERED:

a. Two-year Course in the Social Sciences. The study of social change and economic development in the widest sense. The course leads to the degree of Master of Social Sciences.
   REQUIREMENTS FOR ADMISSION: Advanced academic standing in one of the social sciences.
   NEXT COURSE STARTING: September 1958. Closing date for applications: June 30, 1958.

b. Six-Month Advanced Diploma Course in Public Administration.
   REQUIREMENTS FOR ADMISSION: Advanced academic status and preferably some years of experience in the public service.
   NEXT COURSE STARTING: January 1959. Closing date for applications: October 1, 1958.

c. Six-Month Advanced Diploma Course in Economic Planning and Social Accounting.
   REQUIREMENTS FOR ADMISSION: Advanced academic status and preferably some years of experience in the public service.
   NEXT COURSE STARTING: January 1959. Closing date for applications: October 1, 1958.

d. Six-Month Advanced Diploma Course in Social Welfare Policy for Low Income Countries.
   REQUIREMENTS FOR ADMISSION: Practical experience in social work, preferably at the teaching and public service level.
   NEXT COURSE STARTING: September 1958. Closing date for applications: June 30, 1958.

Technological University at Delft — Netherlands Universities Foundation for International Co-operation

Information: Netherlands Universities Foundation for International Co-operation, 27, Molenstraat, The Hague.

COURSE OFFERED:

International Course in Hydraulic Engineering. Three branches of study:
1. Tidal and coastal engineering;
2. Reclamation;
3. Rivers and navigation works.

The course lasts twelve months and leads to a Diploma.

REQUIREMENTS FOR ADMISSION: a degree in engineering of a recognized institution of higher learning.

NEXT COURSE STARTING: October 1958 (at Delft).

[1] Courses are given in English only, unless otherwise mentioned.

Agricultural University at Wageningen — Netherlands Universities Foundation for International Co-operation

Information: Netherlands Universities Foundation for International Co-operation, 27, Molenstraat, The Hague.

COURSE OFFERED:

Summer course of the combined Netherlands Universities, 1958. Subject: Town and Country in the evolution of civilization.

REQUIREMENTS FOR ADMISSION: Students at, or graduates of, an institute of higher education.

NEXT COURSE: July 16–August 5, 1958.

Foundation "Training Courses and Research" — Netherlands Universities Foundation for International Co-operation

Information: Netherlands Universities Foundation for International Co-operation, 27, Molenstraat, The Hague.

COURSE OFFERED:

International Course on Small-Scale Industries. Theoretical and practical training in investigating and solving the specific problems of small-scale industries, and in finding a methodology which can be applied to the establishment of new industries. Successful attendance of the course leads to a diploma.

REQUIREMENTS FOR ADMISSION: B.Sc. or M.Sc. in engineering or equivalent degree of recognized universities.

NEXT COURSE: November 1958 until end of April 1959.

International Training Centre for Aerial Survey

Information: The Dean, International Training Centre for Aerial Survey, 3, Kanaalweg, Delft.

COURSES OFFERED:

a. Photogrammetry, including cartography, topography and theory of errors;

b. Photogeology;

c. Use of air photographs for soil survey and other agricultural purposes;

d. The same for forestry and other sylvicultural purposes;

e. Air photography and survey navigation.
Lectures and instruction are given in English, French or German.
Courses are adapted to individual needs, and may therefore vary from some months to two years.

REQUIREMENTS FOR ADMISSION: Dependent upon the individual student's programme of study.

NEXT COURSE(S) STARTING: September and January.

Roman Catholic University at Nymegen

Information: Theological Faculty, 13, Wilhelminasingel, Nymegen.

COURSE OFFERED:

Theological Week. General Theme: "Man". Addresses on the following subjects inter alia: On the Marxist, the Existentialist, the Biblical, the Protestant and the Roman Catholic Conception of Man, and on Christian Humanism.

REQUIREMENTS FOR ADMISSION: Open to university students.

NEXT COURSE: July 21–25, 1958, at Nymegen.

The Hague Academy of International Law

(Founded in 1923 with aid from the Carnegie Endowment).

Information: The Secretariat, The Hague Academy of International Law, Peace Palace, The Hague.

COURSES OFFERED:

a. 29th Summer Session, 1958. (consisting of two periods). Lectures on international law in English and French are given in both periods. At the end of the period students admitted to the course sit for an examination, which leads in the case of a pass to the award of a diploma.

REQUIREMENTS FOR ADMISSION: Study and/or practical experience in international law: university professors and students, civil servants, judges, lawyers, diplomatic, consular and international officers.
NEXT COURSE: 1st period: July 7–26, 1958; 2nd period: August 4–23, 1958.

b. 2nd Session of the Centre of Studies and Research in International Law and International Relations. During this session 30 specially selected scholars will be dealing with case-studies in international law. Attendants of the course will be divided into an English-speaking and a French-speaking group, each with its own Director of Studies.

REQUIREMENTS FOR ADMISSION: advanced academic degree, such as the Academy's diploma, or proof of at least three years' actual practice in international affairs.
NEXT COURSE: August 25–October 5, 1958.

Institute of Oriental Studies, Leyden

Information: The Secretary, Institute of Oriental Studies, 61, Rapenburg, Leyden.

COURSES OFFERED:

Language and culture of Indonesia and Malaya, The Arabian Countries, Japan, China.

REQUIREMENTS FOR ADMISSION: Candidates must be qualified for university studies in their own country.

NEXT COURSES STARTING: October 1958 (duration 3 or 7 months).

International Agriculture Study Centre — Ministry of Agriculture — Agricultural University at Wageningen

Information: Director, International Agricultural Study Centre, 1, Generaal Foulkesweg, Wageningen.

COURSES OFFERED:

a. International Meeting on Methods and Programme Planning in Agricultural and Home Economics Extension. Languages: French, English, German.

REQUIREMENTS FOR ADMISSION: the course is especially devised for extension officers.

NEXT COURSE: July 7–31, 1958.

b. International Seminar on Land Development for Agricultural Uses. Languages: French, English, German.

REQUIREMENTS FOR ADMISSION: The seminar aims to attract officials who have to promote, co-ordinate and supervise land development projects in their various aspects, in their own country.

NEXT COURSE: August 25–September 12, 1958.

Ministry of Education, Arts and Sciences

Information: Congress Organization Office, Ministry of Education, Arts and Sciences, 3, R. J. Schimmelpennincklaan, The Hague.

COURSES OFFERED:

a. Summer Course on Dutch Language and Culture, Utrecht, 1958.

REQUIREMENTS FOR ADMISSION: Participants must be French-speaking persons, interested in Dutch language and culture by virtue of their profession or for other reasons.

NEXT COURSE: Augustus 18 to September 6, 1958.

b. Vacation courses for Belgian teachers, Amsterdam, 1958 (organized in co-operation with the Belgian Ministry of Public Education).

REQUIREMENTS FOR ADMISSION: Participants must be engaged in teaching in Belgium.

NEXT COURSE: For secondary school teachers: July 7 to 22, 1958. For elementary school teachers: July 28 to August 12, 1958.

Netherlands Universities Foundation for International Co-operation

Information: NUFFIC, 27 Molenstraat, The Hague.

COURSE OFFERED:

"Survey of the Netherlands" — introductory courses on the Netherlands, lasting about one week. —

REQUIREMENTS FOR ADMISSION: usual requirements for university study.

NEXT COURSE: courses will be given during summer months, upon request, for groups of at least 15 students.

Bouwcentrum (Building Centre)

Information: Bouwcentrum, P.O. Box 299, Rotterdam.

COURSE OFFERED:

International Course on Building – in co-operation with the Central National Council for Applied Scientific Research in the Netherlands, TNO. The course is on the graduate level and lasts six months. Its object is to present a systematic basis for the treatment of the problems encountered in the building industry, as well as to give a number of practical methods for tackling these problems.

REQUIREMENTS FOR ADMISSION: B.A., B.Sc. or equivalent degree of recognized universities or colleges. Applicants must, in their own countries, have a task concerned with building.

NEXT COURSE STARTING: September 1958.

The Philips International Institute of of Technological Studies

Information: Director of Studies, Philips International Institute, Eindhoven.

COURSES OFFERED:

a. Individual, theoretical and experimental study programmes on any subject within the range of Philips activities; for instance electronics and applications thereof, X-rays, light and lighting, etc.

b. Three-month course of lectures on basic electronics (October–December).

c. Three-month advanced-level course of lectures. The main subject of this course may differ from year to year but will generally be related to some form of applied electronics.

Teaching language is English. Nominal duration of a complete period of study is one year.

REQUIREMENT FOR ADMISSION: a graduate science degree.

Commencement of next course: In view of the individual character of the study, students may enter upon their course at any date; the courses mentioned will, however, usually start in October and February.

THE 4TH AND 5TH INTERNATIONAL COURSES ON SMALL-SCALE INDUSTRIES OF THE FOUNDATION "TRAINING COURSES AND RESEARCH" AT DELFT WILL BEGIN ON NOVEMBER 4, 1958 AND ON MAY 5, 1959

These identical six months' advanced courses are designed for persons with an engineering degree or a comparable technical background. The course is divided into two equal periods of theoretical instruction and of practical work, adapted to the specific requirements of each participant. All instruction is given in the English language.

A CHOICE CAN BE MADE FROM AMONG THREE BRANCHES OF STUDY:

- Establishment and operation of new industries
- Improvement of conditions in already existing industries
- Establishment and management of training centres, institutions or organizations for the promotion of, and assistance to, small-scale industries

For the prospectus/calendar of the 1958–1959 courses, containing detailed information, please apply to:

THE REGISTRAR,
INTERNATIONAL COURSE ON SMALL-SCALE INDUSTRIES,
NETHERLANDS UNIVERSITIES FOUNDATION FOR INTERNATIONAL CO-OPERATION (NUFFIC)

27, MOLENSTRAAT
THE HAGUE, THE NETHERLANDS

INTERNATIONAL COURSE IN HYDRAULIC ENGINEERING 1958-1959

Delft
The Netherlands

Engineers from all over the world are studying this year in the International Course in Hydraulic Engineering at the Technological University of Delft. The programme of this 11 months' course includes:

LECTURES
EXCURSIONS
DESIGN WORK
PRACTICAL WORK

The participants are taking advantage of the experience and knowledge of leading Dutch engineers and of the many important hydraulic works now under construction or in operation in the Netherlands. All instruction is given in the English language.

THE COURSE WILL BE REPEATED IN 1958-1959, BEGINNING OCTOBER 22, 1958.

According to the interests of the participants special attention can be paid to one of the following chief branches of study:

Tidal and Coastal Engineering (including harbours)
Rivers and Navigation Works
Reclamation (including ground-water recovery)

For prospectus and calendar of the 1958-1959 course, containing detailed information, please apply to:

THE REGISTRAR
INTERNATIONAL COURSE IN HYDRAULIC ENGINEERING
NETHERLANDS UNIVERSITIES FOUNDATION FOR INTERNATIONAL CO-OPERATION (NUFFIC)
27, MOLENSTRAAT
THE HAGUE, THE NETHERLANDS

The following institutions of higher education participate in the Netherlands Universities Foundation for International Co-operation:

State University at Leyden
State University at Groningen
State University at Utrecht
University of Amsterdam
Free (Reformed) University of Amsterdam
Roman Catholic University at Nymegen
Technological University at Delft
Agricultural University at Wageningen
Netherlands School of Economics at Rotterdam
Roman Catholic School of Economics at Tilburg
Technological University at Eindhoven

Printed in the Ne